Government of **Western Australia**
Development Assessment Panels

Metro South-West Joint Development Assessment Panel Agenda

Meeting Date and Time: Friday, 29 August 2014; 11am
Meeting Number: MSWJDAP/51
Meeting Venue: City of Cockburn

Attendance

DAP Members

Mr David Gray (Presiding Member)
Mr Ian Birch (Deputy Presiding Member)
Mr Sasha Ivanovich (Alternate Specialist Member)
Cr Joy Stewart (Local Government Member, City of Rockingham)
Cr Carol Reeve-Fowkes (Local Government Member, City of Cockburn)
Cr Bart Houwen (Local Government Member, City of Cockburn)

Officers in attendance

Mr Patrick Leach (Development Assessment Panels)
Mr Craig Zanott (City of Rockingham)
Mr Don Bothwell (City of Cockburn)
Mr Daniel Arndt (City of Cockburn)
Mr George Ashton (TPG)
Mr Dan Lees (TPG)

Local Government Minute Secretary

Ms Lynnette Jakovich (City of Cockburn)

Applicants and Submitters

Mr Andrew Picolli (Bateman Architects)
Mr Oskar Booth (McDonald Jones Architects)

Members of the Public

Nil

1. Declaration of Opening

The Presiding Member declares the meeting open and acknowledges the past and present traditional owners and custodians of the land on which the meeting is being held.

2. Apologies

Mr Rob Nicholson (Specialist Member)

3. Members on Leave of Absence

Nil

4. Noting of Minutes

The Minutes of the Metro South-West JDAP Meeting No.50 held on 20 August 2014 were not available at time of Agenda preparation.

5. Disclosure of Interests

Nil

6. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

7. Deputations and Presentations

Nil

8. Form 1 - Responsible Authority Reports – DAP Applications

8.1	Property Location:	Lot 804 Stillwater Drive, Baldivis WA 6171
	Application Details:	Construction of a New Public Primary School 'Rivergum Primary School'
	Applicant:	Bateman Architects
	Owner:	Minister for Education
	Responsible authority:	Department of Finance (Building Management and Works
	Report date:	20 August 2014
	DoP File No:	DAP/14/00562
8.2	Property Location:	75-79 (Lots 1027, 1026 & 1025) Orsino Boulevard NORTH COOGEE
	Application Details:	52 Multiple Dwellings
	Applicant:	McDonald Jones Architects
	Owner:	Port Coogee Apartments Pty Ltd
	Responsible authority:	City of Cockburn
	Report date:	21 August 2014
	DoP File No:	DAP/14/00576

9. Form 2 – Responsible Authority Reports - Amending or cancelling DAP development approval

Nil

10. Appeals to the State Administrative Tribunal

11. Meeting Closure

Government of Western Australia
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Property Location:	Lot 804 Stillwater Drive, Baldivis WA 6171
Application Details:	Construction of a New Public Primary School 'Rivergum Primary School'
DAP Name:	Metro South-West JDAP
Applicant:	Bateman Architects
Owner:	Minister for Education
LG Reference:	20.2014.239.1
Responsible Authority:	Department of Finance (Building Management and Works
Authorising Officer:	Peter Gillies, Assistant Director Land Assembly Branch, Department of Finance (Building Management and Works)
Department of Planning File No:	DAP/14/00562
Report Date:	20 August 2014
Application Receipt Date:	18 June 2014
Application Process Days:	62 Days
Attachment(s):	1 - Location and Aerial Photograph Plans 2 - Site Feature Survey 3 - Development Plans (Site Plan/Floor Plans/Elevations) 4 - Traffic Report 5 - Response from the City of Rockingham 6 – Acoustic Report 7 – Response from Main Roads WA

Recommendation:

That the Metro South-West JDAP resolves to:

Approve DAP Application reference DAP/14/00562 and accompanying plans for the New Public Primary School in accordance with the 'Rivergum Primary School' drawings prepared by Bateman Architects, being:

Drawing No. A1.01$_E$ titled 'Proposed Site Plan';
Drawing No. A2.21$_A$ titled 'Administration Block – Floor Plan & Elevations';
Drawing No. A2.31$_A$ titled 'Administration Block – Roof Plan, Ceiling Plan & Sections';
Drawing No. A3.21$_A$ titled 'Library & Staffroom Block – Floor Plan';
Drawing No. A3.31$_A$ titled 'Library & Staffroom Block –Elevations';
Drawing No. A3.61$_A$ titled 'Library & Staffroom Block – Ceiling & Roof Plan';
Drawing No. A4.21$_A$ titled 'Teaching Block 1 – Overall Floor Plan';
Drawing No. A4.22$_A$ titled 'Teaching Block 1 – Floor Plan 1 of 2';
Drawing No. A4.23$_A$ titled 'Teaching Block 1 – Floor Plan 2 of 2';
Drawing No. A4.31$_A$ titled 'Teaching Block 1 – Elevations';
Drawing No. A4.41$_A$ titled 'Teaching Block 1 – Sections';
Drawing No. A4.61$_A$ titled 'Teaching Block 1 – Ceiling Plan';
Drawing No. A5.21$_A$ titled 'Teaching Block 2 – Floor Plan';
Drawing No. A5.31$_A$ titled 'Teaching Block 2 – Elevations';
Drawing No. A5.41$_A$ titled 'Teaching Block 2 – Sections';
Drawing No. A5.61$_A$ titled 'Teaching Block 2 – Ceiling Plan';

Drawing No. A6.21$_A$ titled 'Teaching Block 3 – Floor Plan';
Drawing No. A6.31$_A$ titled 'Teaching Block 3 – Elevations & Sections';
Drawing No. A6.61$_A$ titled 'Teaching Block 3 – Ceiling & Roof Plan';
Drawing No. A7.21$_A$ titled 'Teaching Block 4 – Floor Plan';
Drawing No. A7.31$_A$ titled 'Teaching Block 4 – Elevations';
Drawing No. A7.41$_A$ titled 'Teaching Block 4 – Sections';
Drawing No. A7.61$_A$ titled 'Teaching Block 4 – Ceiling Plan';
Drawing No. A8.21$_A$ titled 'Covered Assembly Block – Floor Plan';
Drawing No. A8.31$_A$ titled 'Covered Assembly Block – Elevations';
Drawing No. A8.61$_A$ titled 'Covered Assembly Block – Ceiling Plan';

And the Landscape Architectural Drawings prepared by Bateman Architects, being:

Drawing No. L.01A titled 'Landscape Construction – Hard & Soft Works Drawing';
Drawing No. L.02A titled 'Landscape Construction – Hard & Soft Works Drawing';
Drawing No. L.03A titled 'Landscape Construction – Hard & Soft Works Drawing';
Drawing No. L.04A titled 'Landscape Construction – Hard & Soft Works Drawing';
Drawing No. L.05A titled 'Landscape Construction – Hard & Soft Works Drawing';
Drawing No. L.06A titled 'Landscape Construction – Hard & Soft Works Drawing';

and the 'Transportable School Buildings' drawings prepared by Patterson Group Architects, being:

Drawing A1.01[1] titled 'Standard GLA Classroom Floor & Ceiling Plan, Elevations';
Drawing A2.01[1] titled 'Pre-Primary Classroom Floor & Ceiling Plan, Win & Door Schedule';
Drawing A2.02[1] titled 'Pre-Primary Classroom Sections & Elevations';

all stamped 'TPG RECEIVED 18 JUNE 2014', in accordance with the provisions of the Metropolitan Region Scheme, subject to the following conditions:

Conditions

1. All stormwater produced is to be disposed of on-site to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission.

2. The public road to the south of the school site is to be constructed prior to occupation of the proposed development to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission

3. All proposed crossovers, on-street car parking bays and works within the road reserve shall be to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission.

4. All car parking and associated vehicle access areas shown on the approved plans shall be constructed, drained and marked prior to the occupation of the proposed development and thereafter maintained to the satisfaction of the Western Australian Planning Commission.

5. The car parking and associated vehicle access areas shown on the approved plans shall be available for vehicles and shall not be used for the purpose of storage or obstructed in any way.

6. No earthworks, structures or fixed components of development, permanent or otherwise, are to encroach on the Kwinana Freeway road reservation.

7. Existing ground levels on the boundary of the site and the Kwinana Freeway road reservation shall be maintained as existing.

8. Any damage done to the existing verge and its vegetation, within the Kwinana Freeway road reservation, shall be made good at the full expense of the applicant.

9. Detailed landscaping plans for the proposed development site and verge areas (incorporating vegetation species and sizes, pavement area and reticulation details) shall be prepared in consultation with the City of Rockingham and to the satisfaction of the Western Australian Planning Commission.

10. Landscaping as specified in the approved landscape plans referred to in condition 9 shall be planted prior to the occupation of the proposed development and thereafter maintained to the satisfaction of the Western Australian Planning Commission.

11. A signage plan indicating the location and design of any proposed signage (including traffic directional signage) is to be prepared to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission.

12. All piped and wired services, mechanical plant, equipment and storage areas are to be screened from public view to the satisfaction of the Western Australian Planning Commission.

13. A suitably screened bulk bin area is to be provided prior the occupation of the proposed development and designed to the specification of City of Rockingham and the satisfaction of the Western Australian Planning Commission.

14. A Dust Management Plan to be prepared to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission prior to the commencement of site works. Once approved, the Dust Management plan is to be implemented in its entirety.

15. A Waste Management Plan is to be prepared to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission.

16. A noise barrier wall is to be constructed along the Kwinana Freeway boundary of the site in accordance with the Lloyd George Acoustic Consultants Report.

17. The development site should be connected to the reticulated sewerage system of the Water Corporation before commencement of any use where possible. Where reticulated sewerage is not available the development should be connected to an approved effluent disposal system to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission.

Advice Notes

1. All development must comply with the provisions of the Health Regulations, Building Code of Australia, Public Building Regulations and all other relevant Acts, Regulations and Local Laws. This includes the provision of access and facilities for people with disabilities in accordance with the Building Codes of Australia.

2. The applicant is reminded of its obligations under the *Building Act 2011*.

3. In relation to condition 1, the applicant is advised that all stormwater drainage shall be contained on-site and shall not be discharged onto the Kwinana Freeway road reservation.

4. Car parking areas are to be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking.

5. Car parking spaces dedicated to people with disabilities are to be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, Parking Facilities, Part 6: Off-street parking for people with disabilities, linked to the main entrance of the development by a continuous accessible path of travel designed in accordance with Australian Standard AS 1428.1-2009, Design for access and mobility, Part 1: General Requirement for access – New building work.

6. Confine all illumination to the land in accordance with the requirements of Australian Standard AS 4282-1997, Control of the obtrusive effects of outdoor lighting, at all times.

7. The proposed works fall within a site that has identified low to moderate acid sulphate soil risk. In line with standard self assessment tools developed by the Department of Planning all construction and development on site shall recognise the risk and monitor any potential exposure of soils.

If the development of the subject of this approval is not substantially commenced within a period of two years from the date of this letter, the approval shall lapse and be of no further effect. Where an approval has so lapsed no development shall be carried out without the further approval of the responsible authority having first been sought and obtained.

This decision is issued pursuant to the provisions of the Metropolitan Region Scheme, and has been made after due consideration of the regional planning implications of the proposal.

Should the applicant be aggrieved by this decision there is a right to apply for a review pursuant to the provisions of Clause 33 of the Metropolitan Region Scheme. Such an application for review must be submitted to the State Administrative Tribunal, 12 St George's Terrace, Perth in accordance with Part 14 of the *Planning and Development Act 2005*. It is recommended that you contact the State Administrative Tribunal for further details (telephone 9219 3111) or go to its website. http://www.sat.justice.wa.gov.au

Background:

Property Address:		Lot 804 Stillwater Drive, Baldivis WA 6171
Zoning	MRS:	'Urban'
	TPS:	'Development (DA25)'
Use Class:		Public Primary School (TPS: Educational Establishment
Strategy Policy:		Baldivis South District Structure Plan – identified as High School/Primary School. Rivergums East Structure Plan – identified as 'Public Purposes – Primary School'.
Development Scheme:		None
Lot Size:		Parent Lot: 14.157 hectares (portion subject to proposed primary school: 4.3022 hectares)
Existing Land Use:		Vacant
Value of Development:		$10,868,400.00

Under Section 6 of the *Planning and Development Act 2005* public authorities are exempt from the requirement to obtain development approval for a public work under a local planning scheme. The development of a public primary school is a public work. Section 5(2) of the *Planning and Development Act 2005* requires the Crown to seek approval under a Regional Planning Scheme, therefore there is no requirement to seek approval under a local planning scheme, however there is under the MRS.

Under delegation instrument DEL 2009/02 Power of Officers (Department of Finance), the Deputy Director General, Building Management and Works (BMW), Department of Finance is authorised to determine applications for public primary schools on MRS zoned land on the Commissions behalf.

Therefore the responsible authority is the Department of Finance.

Details: outline of development application

Introduction

The subject site is currently undeveloped and pending clearing of native vegetation to the west, which has been subject to a previous approval for forward earthworks. The site slopes slightly from south to north with a change in level of approximately 6.6 metres RL to 6.05 metres RL. The finished floor levels of the proposed buildings are to be between 6.4 and 6.6 metres RL.

The site is zoned 'Urban' under the Metropolitan Region Scheme and 'Development' under the City of Rockingham Town Planning Scheme No. 2 (TPS2). The site is identified in the South Baldivis District Structure Plan as being for a High School/ Primary School. The Rivergums East Local Structure Plan identifies the portion of the lot subject to this application as being for 'Public Purposes – Primary School', with the remainder being identified as 'Public Purposes – High School'. The northern portion of the lot has already been developed as a high school, being the Baldivis Secondary College.

The proposed public primary school development is therefore consistent with the approved District Structure Plan and the approved Local Structure Plan.

Details of Proposed Development

The applicant proposes to construct a new public primary school on the site, to be known as Rivergum Primary School. The school is intended to accommodate 430 kindergarten to year 6 students.

The proposal involves the construction of:

- Seven (7) new single storey buildings, namely Teaching Blocks 1 (early childhood block), 2, 3 and 4, an administration building, library block and covered assembly block.
- Two car parking areas providing 161 new onsite bays with access from three new crossovers; one to Stillwater Drive and two to the road to be constructed to the south (future Rivergum Boulevard). An additional 12 on-street bays are provided within the road reserve of the road to be constructed, with additional street parking available within the Stillwater Drive road reserve.
- A bicycle parking area, accommodating 60 bicycle parking bays.
- Two hardcourts, enclosed with 3.6 metre high chainwire fencing.
- Four nominated playground areas.
- A school oval to the east of the site.
- Nominated areas for ten (10) future transportable classrooms (which form part of this application).
- 2.1 metre high garrison fencing around the main school buildings, for the purpose of ensuring the school's security both during and after school hours. There is also an existing 1.8 metre high chainwire fence between the primary school and high school sites.

The new primary school is to be constructed primarily of face brick in the colour 'Kalbarri Red', with feature blue brickwork and Colorbond roof sheeting in the colour 'Surfmist'.

The proposed Teaching Blocks provide a total of 16 classrooms, including 10 general classrooms, 3 pre-primary classrooms, 2 kindergarten classrooms and an inclusive learning classroom. In addition, a designated music room, and arts and crafts room are provided within the covered assembly block and Teaching Block 4, respectively.

This application also includes the ten future transportable classrooms as shown on the site plan provided. If all ten transportable classrooms are utilised, the maximum occupancy for the school is estimated to be 694 students.

Legislation & policy:

Legislation
Planning and Development Act 2005

City of Rockingham Town Planning Scheme No. 2

The purpose of the Development Zone under TPS2 is as follows:

(a) To identify area requiring comprehensive planning prior to subdivision and development.

(b) To coordinate subdivision, land use and development in areas requiring comprehensive planning.

TPS2 does not define a parking requirement for 'Educational Establishments' however; the City has stated that 14 pick-up/drop-off bays per 100 children and 1 bay for each staff member are required. Based on the forecast student population of 430 students, plus 32 staff members, the City of Rockingham requires 92 car parking bays.

Based on the maximum occupancy scenario of 694 students (upon occupation of all ten proposed transportable classrooms), and assuming a proportional increase in staff members, the proposed primary school would require 149 car parking bays.

The total parking provision of 173 bays, comprising 161 onsite bays and 12 on-street embayments, exceeds the City of Rockingham's requirements under both the anticipated student population and maximum occupancy scenarios.

State Government Policies
Western Australian Planning Commission Development Control Policy 2.4 – School Sites

Western Australian Planning Commission Planning Bulletin 94 – Approval Requirements for Public Works and Development by Public Authorities

Western Australian Planning Commission Planning Bulletin 96 – Powers of Officers (Department of Finance)

Local Policies

Baldivis South District Structure Plan
Baldivis South District Structure Plan identifies the site as 'High School/Primary School'.

Rivergums East Structure Plan
The Rivergums East Structure Plan identifies the site as being reserved for 'Public Purposes – Primary School'. As such, the site is considered strategically suitable for the development of a public primary school and in accordance with the provisions of the Structure Plan.

Consultation:

Consultation with other Agencies or Consultants

- City of Rockingham

The application was referred to the City of Rockingham (the City) for comment. The City's response is enclosed as Attachment 5. The City of Rockingham supports the proposal subject to eight conditions and two advice notes. Each of the recommended conditions and advice notes has been addressed in this report.

- Main Roads Western Australia

The application was also referred to Main Roads WA as the site abuts the Kwinana Freeway 'Primary Regional Roads' reservation under the MRS. Main Roads WA's response is enclosed as Attachment 7. Main Roads WA supports the proposal subject to four conditions and two advice notes. Each of the recommended conditions and advice notes has been addressed in this report.

Planning assessment:

Western Australian Planning Commission Development Control Policy No. 2.4 – School Sites

The proposed primary school is assessed against the provisions of Development Control Policy No. 2.4 – School Sites (DC Policy 2.4) as follows:

- Site Requirements

The site area of 4.3022 hectares is consistent with the 4 hectare requirement stipulated in DC Policy 2.4. Furthermore, the size of the site is considered appropriate given that it can accommodate all the required school facilities, and provide for future transportable expansion.

- Site Selection and Planning

The proposed school site is relatively flat with a change in level of approximately 0.5 metres across the site. The finished floor levels of the school buildings are to be between 6.4 and 6.6 metres RL.

- Access Issues

The school site will maintain two public street frontages, with footpaths and on-street parallel parking bays to be provided to the for construction road to the south. The Traffic Report prepared by GHD in support of the application (Attachment 4) made a number of recommendations that have been addressed by the applicant and are shown in the 'Proposed Site Plan' recommended for approval. The only recommendation that has not been implemented is in regard to the separation distance between the roundabout at the intersection of Stillwater Drive and the future Rivergum Boulevard and the on-street parking embayments proposed on Rivergum Boulevard. However, it is noted that the layout of the on-street parking embayments is in accordance with the Australian Standards and further discussions with the traffic engineer have indicated that the intersection will still operate in a safe manner. It is therefore considered that parking and access for the proposed primary school is appropriate.

- Relationship to Nearby Land Uses

The proposed primary school is bound by Baldivis Senior College to the north, Kwinana Freeway to the east, a road reserve (to be constructed as Rivergum Boulevard) to the south and Stillwater Drive to the west. There are existing residential land uses on Stillwater Drive on the opposite side from the school.

Based on the above assessment, the proposed primary school is considered to be in accordance with the provisions of Development Control Policy No. 2.4 – School Sites.

The proposed layout of the school buildings and car parking areas appears logical, providing sufficient building-to-building separation and appropriate setbacks from the site boundary.

Environmental and Heritage Considerations

The proposed works fall within a site that has an identified low to moderate acid sulphate soil risk. In line with standard self assessment tools developed by the Department of Planning all construction and development on site shall recognise the risk and monitor any potential exposure of soils. Should Acid Sulfate Soils be identified on site during construction, construction shall only continue in line with the Generic Acid Sulphate Soils and Dewatering Management Plan which provides agreement for development to occur on these sites subject to the construction occurring in accordance with the agreed Management Plan (this is in line with the agreement reached between the Department of Finance (DOF), the Department of Environment and Conservation (DEC) and the Department of Water (DOW) on 4 August 2010).

The proposed works are located on a site that has a multiple use wetland identified. However, the wetland also affects a number of surrounding sites that have already been developed, or are in the process of being developed, for residential dwellings and the Baldivis Secondary College. Furthermore, this has not been raised as an issue or condition by the City of Rockingham and a standard stormwater condition will be placed on this application. As a result, it is not expected that the proposed development will impact on the wetland or the amenity of the locality.

A forward works package is currently in progress on the site, which was subject to a separate approval and was undertaken to address any environmental issues and ensure that the site is suitable for development.

A desktop search of European and Aboriginal heritage indicates that the site has no known heritage significance.

Car Parking

The car parking for the proposed primary school has been assessed against the Building Management and Works and Western Australian Planning Commission requirements, which are taken from the Schools Taskforce Report (1992) car parking guidelines. The car parking requirements for primary schools are as follows.

- Kindergarten
    - 8 bays as a minimum.
    - 7 additional bays as a Department of Education directive.

- Primary and Pre-Primary
    - 14 pick-up/drop-off bays per 100 students.
    - 10 staff bays per 100 students, with a minimum of 46 staff bays onsite (including 3 visitor bays).
    - 1 on-street bus bay.

- Universal Access
    - 1 bay for every 30 onsite to be included in the above totals.

- Additional Non Compulsory Parking
    - 4 bays for canteen staff.
    - Additional universal access bays as required.

- Dental Therapy (Non Compulsory)
    - 6 bays on-site.

The occupancy of the proposed classrooms is calculated as 20 students per kindergarten classroom, 27 per pre-primary classroom and 28 per primary classroom.

Based on the above requirements and the proposed development catering for 430 students, the proposal requires the provision of 116 car parking bays, comprising 15 bays for the kindergarten classrooms, 55 drop-off/pick-up bays for pre-primary and primary students, and 46 bays for staff and visitors.

If the school were to reach its maximum occupancy of 694 students, upon occupation of all ten proposed transportable classroom, the proposal would require 182 bays, comprising 15 bays for the kindergarten component, 97 drop-off/pick-up bays for pre-primary and primary students, and 70 bays for staff and visitors.

The proposed primary school provides a total of 173 car parking bays, comprising 161 onsite bays and 12 on street bays. Therefore, the provision of parking is in excess of the requirements under the anticipated student population and results in a potential future 9 bay shortfall if the school reached it's maximum occupancy of 694 students.

The potential future shortfall is considered to be justified for the following reasons:

- The provision of parking complies with the City of Rockingham's requirements under both identified student population scenarios. The City of Rockingham has not raised any concerns regarding the proposed development with respect to the provision of parking;
- The maximum occupancy scenario assumes full capacity for the school, including all ten transportables shown on the site plan provided. It is noted that the school may never reach the maximum occupancy and that the parking is appropriate to the anticipated student population;
- The shortfall is minor in nature and it is considered that sufficient parking is provided to accommodate anticipated staff and student numbers; and
- There are additional on-street parking bays (8 bays) in close proximity available on Stillwater Drive that can supplement the parking available at the primary school site, and which have not been included in the calculation of the 12 on-street bays noted above.

As such, the provision of parking for the new primary school is supported.

City of Rockingham Recommendation:
The City of Rockingham supports the proposed development and has recommended the following conditions and advice notes, as listed and discussed below.

Recommended Conditions

1. *This Approval shall be in accordance with the amended development application plans (Drawing No. A1.01 Rev. E), received by the City on 7 August 2014.*

It is considered that this is covered by the standard approval wording, which requires that the development be carried out in accordance with the approved plans. It is therefore not necessary to include as a separate condition.

2. *The development must be in accordance with the GHD Report for Bateman Architects – Rivergum Primary School Traffic Impact Assessment dated July 2014.*

The Traffic Report prepared by GHD in support of the application (Attachment 4) made a number of recommendations that have been addressed by the applicant and are shown in the 'Proposed Site Plan' recommended for approval. The only recommendation that has not been implemented is in regard to the separation distance between the roundabout at the intersection of Stillwater Drive and the future Rivergum Boulevard and the on-street parking embayments proposed on Rivergum Boulevard. However, it is noted that the layout of the on-street parking embayments is in accordance with the Australian Standard and further discussions with the traffic engineer have indicated that the intersection will still operate in a safe manner. As such, the road layout is considered appropriate.

Given the above, and that the relevant recommendations of the Traffic Report have been implemented and shown on the plans provided, it is not recommended that the above condition be included.

3. *Earthworks and batters must be stabilised to prevent sand blowing and dust nuisance, for the duration of development.*

A condition (14) has been recommended requiring the preparation of a Dust Management Plan to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission. It is noted that the requirements included in the City's recommended condition can still be imposed, being the relevant specifications of the City of Rockingham.

4. *All stormwater must be contained and disposed of on-site at all times, to the satisfaction of the City for, and certified by a Hydraulic Engineer, with all permanent and temporary stormwater drainage basins being designed to control the breeding of mosquitoes.*

This condition is considered reasonable and has been recommended (1) in a modified wording, such that stormwater drainage is to be to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission, being the standard stormwater condition.

5. *The street setback area and all verge areas must be landscaped and reticulated, prior to the occupation of the proposed development and must be maintained at all times.*

A condition (10) has been recommended requiring that all verge areas shall be landscaped and reticulated prior to the occupation of the proposed development and thereafter maintained to the specification of the City of Rockingham and to the

satisfaction of the Western Australian Planning Commission. This is considered to appropriately address the City's requested condition. An additional condition (9) relating to the preparation and implementation of detailed landscaping plans has also been recommended, as discussed below.

6. *The carpark must:*
    a. *Provide a minimum of 161 car parking bays on-site;*
    b. *Be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.1:2004, parking facilities, Part 1: Off-street car parking unless otherwise specified by this approval, prior to applying for a Building Permit – Certified;*
    c. *Include six car parking space(s) dedicated to people with disabilities in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, Parking Facilities, Part 1: Off-street parking for people with disabilities, linked to the main entrance of the development by a continuous accessible path of travel designed in accordance with Australian Standard AS1428.1-2009, Design for access and mobility, Part 1: General requirements for access - New building work;*
    d. *Be constructed, sealed, kerbed, drained and marked prior to the development being occupied and maintained thereafter.*
    e. *Have lighting installed, prior to the occupation of the development; and*
    f. *Confine all illumination to the land in accordance with the requirements of Australian Standard AS 4282-1997, Control of the obtrusive effects of outdoor lighting, at all times.*

In relation to condition (a), it is noted that the proposed site plan includes 161 car parking bays. Therefore, it is considered that this is covered by the standard approval wording, which requires that development be carried out in accordance with the approved plan, and should not be included.

Conditions (b), (c) and (f) refer to legislation/regulation outside of the planning framework and are therefore appropriately addressed via advice notes as recommended, and are not recommended as conditions.

Condition (d) is covered by the standard car parking conditions (3, 4 and 5) applied to primary school developments by the Department of Finance under the delegation, which have been recommended.

In relation to condition (e), lighting is appropriately addressed in the Australian Standards as per recommended advice note 6, and it is therefore not necessary to include as a separate condition.

7. *A Landscaping Plan must be prepared and include the following detail, to the satisfaction of the City, prior to the commencement of site works:*
    a. *The location, number and type of existing and proposed trees and shrubs including calculations for the landscaping area;*
    b. *Any lawns to be established;*
    c. *Any natural landscape areas to be retained;*
    d. *Those areas to be reticulated or irrigated; and*
    e. *Verge treatments*

    The landscaping must be completed prior to the occupation of the development, and must be maintained at all times to the satisfaction of the City.

A condition (9) has been recommended requiring the preparation of detailed landscaping plans in consultation with the City of Rockingham and to the satisfaction of the Western Australian Planning Commission. A further condition (10) has been recommended stating that landscaping as specified in the detailed landscaping plans is to be planted prior to the occupation of the proposed development and thereafter maintained to the satisfaction of the Western Australian Planning Commission. This is considered to appropriately address the City's requested condition.

8. *A noise barrier wall being constructed along Kwinana Freeway in accordance with the Lloyd George Acoustic Consultants Report (prepared for the Rivergums Structure Plan), prior to the use of the development. The noise barrier must be maintained at all times.*

A copy of the Lloyd George Acoustics Consultants Report, which was prepared for the Rivergums Structure Plan, has been obtained and is included as Attachment 6. The report includes a noise wall along the eastern (Kwinana Freeway) boundary of the site as part of the recommended noise mitigation measures for the Structure Plan area. It is also noted that the Department of Education has an agreement in place to construct a noise wall for the high school site immediately to the north.

The above condition is therefore considered fair and reasonable, and is recommended in a modified wording (16). This is in line with the recommendation of Main Roads WA as discussed below.

Recommended Advice Notes

1. *The school canteen must comply with the Food Act 2008 and Food Safety Standards. Compliance must be achieved at all times and prior to the use of the development. The City's Health Services should be contacted in this regard.*

This is covered by the standard advice note (1) stipulating compliance with all relevant Acts, Regulations and Local Laws. It is therefore, not necessary to include the above as a separate advice note.

2. *It is understood that the Department will ensure that access to the development will be in accordance with Australian Standards 1428.1 Design for access and mobility.*

This is covered by the standard advice notes (1 and 2) stipulating compliance with all relevant Acts, Regulations and Local, Laws, and reminding the applicant of its obligations under the Building Act 2011. It is therefore, not necessary to include the above as a separate advice note.

Additional Advice Notes
Additional standard advice notes have been recommended relating to compliance with the provisions of relevant legislation and regulations, including the *Building Act 2011*.

Main Roads WA Recommendation:
Main Roads WA supports to the proposed development and has recommended the following conditions and advice notes, as listed and discussed below.

Recommended Conditions

1. *No earthworks, structures, or fixed components of development, permanent or otherwise, are to encroach into the Kwinana Freeway road reservation.*

This condition is considered fair and reasonable, and has been recommended (6).

2. *All stormwater drainage shall be contained on site and shall not be discharged onto the Kwinana Freeway road reservation.*

It is considered that this is covered by the standard stormwater condition (1), which requires that stormwater drainage is to be to the specification of the City of Rockingham and the satisfaction of the Western Australian Planning Commission. However, it is recommended that the above specifications be included as an advice note (3).

3. *Existing ground levels on the boundary of Lot 803 Rivergum Boulevard and the Kwinana Freeway road reservation shall be maintained as existing.*

This condition is considered fair and reasonable, and has been recommended (7).

4. *The applicant/landowner shall be required to undertake the noise mitigation measures as outlined in the Noise Assessment developed by Lloyd George Acoustics, reference: 506377-08a to the satisfaction of Main Roads Western Australia to mitigate against the impact of vehicular noise generated by the function of Kwinana Freeway.*

It is considered that this is appropriately addressed via the recommended noise wall condition (16), which requires the construction of a noise wall in accordance with the Lloyd George Acoustics Consultants Report.

Recommended Advice Notes

1. *Any damage done to the existing verge and its vegetation, within the Kwinana Freeway road reservation, shall be made good at the full expense of the applicant.*

The above is considered fair and reasonable and has recommended a condition of approval (8).

2. *If you are not in possession of the Noise Assessment 506377-08a, please contact the below mentioned officer who can supply you with a copy.*

A copy of the Lloyd George Acoustics Report has been obtained, and the conditions recommended by the City of Rockingham and Main Roads WA with respect to noise mitigation have been addressed in this report and by recommended condition 16. It is not necessary to include the suggested advice note.

Conclusion:

The site is considered strategically suitable for the development of a public primary school and is identified for the development of a primary school in the applicable District and Local Structure Plans.

A Traffic Report has concluded that the car parking and access for the primary school adequately caters for the 430 students the school is intended to accommodate. If the school were to reach it's maximum occupancy upon occupation of all ten future transportable classrooms shown on the site plan there would be a nine bay shortfall in parking. Justification has been provided for this potential future shortfall and the provision of parking for the proposed development is supported.

The layout and scale of the proposed school has been assessed as appropriate for the residential area it is surrounded by.

There are no known environmental or heritage constraints that would restrict the development of the site for a public primary school.

It is recommenced that the proposed development should therefore be approved subject to conditions.

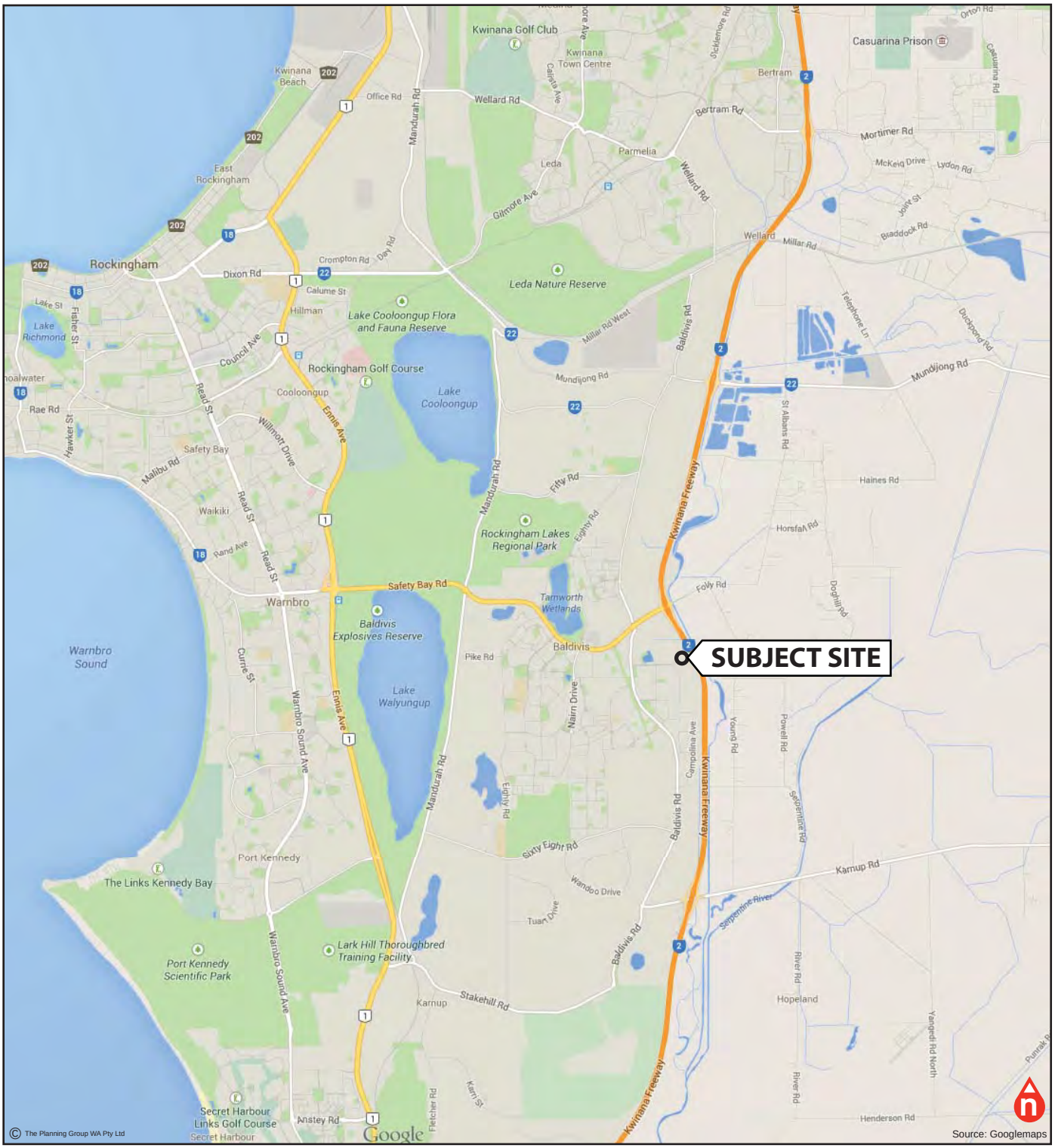


Figure 1

LOCATION PLAN

Lot 804 Stillwater Road, Baldivis

Date: 5 Aug 2014 Project Manager: GA Checked: GA

Scale: NTS @ A4 Drawn: GW

Drawing No. 714-484 PS stillwater rd, baldivis.ai

TOWN PLANNING
URBAN DESIGN AND HERITAGE

Level 7, 182 St Georges Terrace, Perth Western Australia 6000
PO Box 7375 Cloisters Square, Perth Western Australia 6850
Tel +61 8 9289 8300 Fax +61 8 9321 4786 www.tpgwa.com.au
The Planning Group WA Pty Ltd ABN 36 097 273 222

Subject Lot

Subject Site

Figure 2

AERIAL PLAN

Lot 804 Stillwater Road, Baldivis

Date: 5 Aug 2014 Project Manager: GA Checked: GA

Scale: NTS @ A4 Drawn: GW

Drawing No. 714-484 PS stillwater rd, baldivis.ai

TOWN PLANNING
URBAN DESIGN AND HERITAGE

Level 7, 182 St Georges Terrace, Perth Western Australia 6000
PO Box 7375 Cloisters Square, Perth Western Australia 6850
Tel +61 8 9289 8300 Fax +61 8 9321 4786 www.tpgwa.com.au
The Planning Group WA Pty Ltd ABN 36 097 273 222

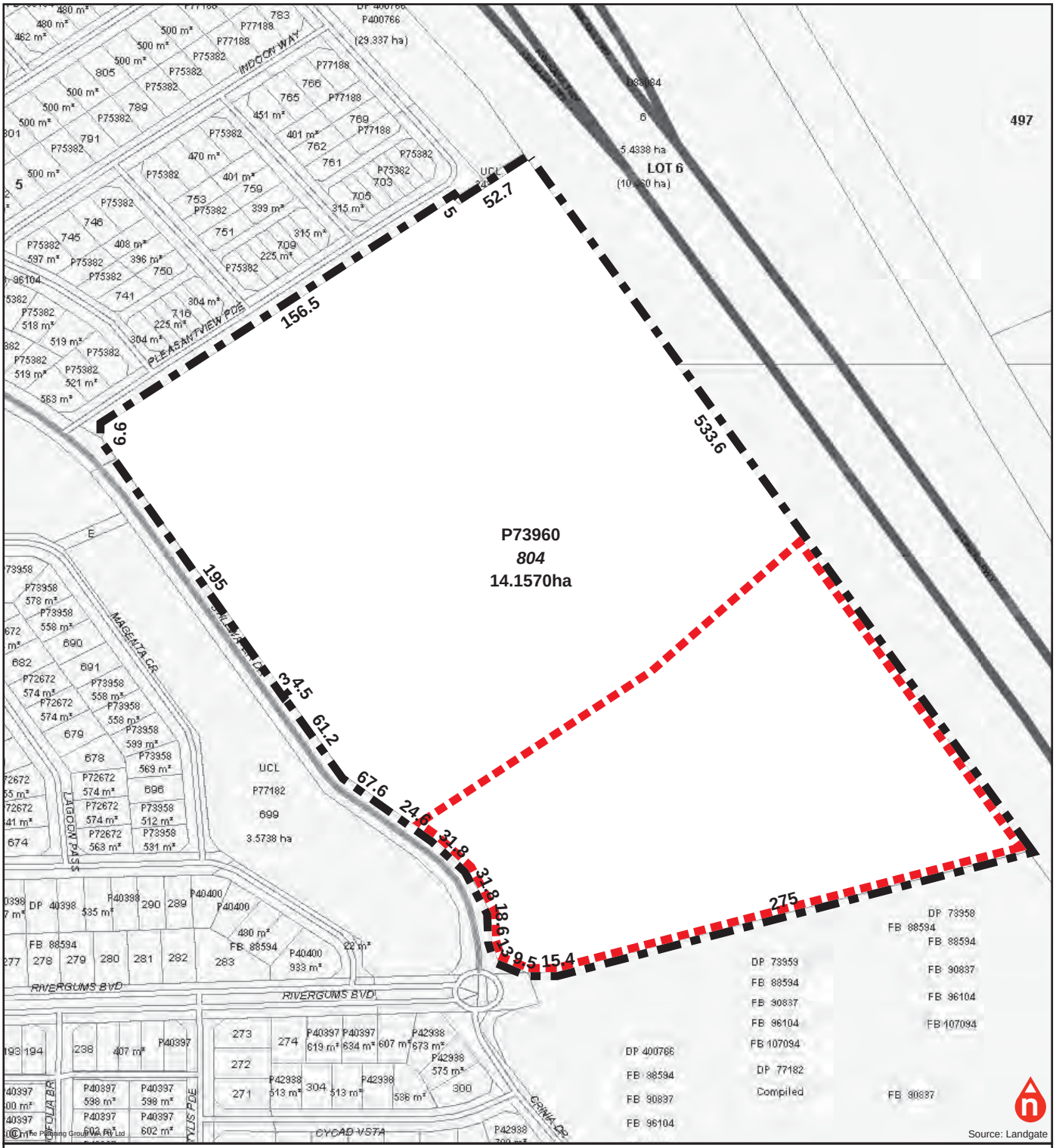


Figure 3

SITE PLAN

Lot 804 Stillwater Road, Baldivis

Date: 5 Aug 2014 Project Manager: GA Checked: GA

Scale: NTS @ A4 Drawn: GW

Drawing No. 714-484 PS stillwater rd, baldivis.ai

TOWN PLANNING
URBAN DESIGN AND HERITAGE

Level 7, 182 St Georges Terrace, Perth Western Australia 6000
PO Box 7375 Cloisters Square, Perth Western Australia 6850
Tel +61 8 9289 8300 Fax +61 8 9321 4786 www.tpgwa.com.au
The Planning Group WA Pty Ltd ABN 36 097 273 222

EXISTING SCHOOL SITE

EXISTING EARTH BERM

EXISTING OPEN DRAIN

LOCALLY FILL AREA TO APPROXIMATE RL. 6.14. ENSURE AREA GRADES TOWARDS EXISTING OPEN CHANNEL

EXISTING CHAINLINK FENCE TO BE RETAINED ALONG NORTHERN SITE BOUNDARY. SCREENING MATERIAL TO BE FIXED TO EXISTING FENCE

PROPOSED 6.0m WIDE LIMESTONE ACCESS TRACK TO BE INSTALLED FOR FUTURE ACCESS ON COMPLETION OF THE CONTRACT

E= 51319.549
N= 221048.911

RL. 6.14

RL. 6.05

RL. 6.11

RL. 6.10

RL. 6.13

RL. 6.06

RL. 6.04

PROPOSED 8.0m WIDE LOCKABLE GATE

DRV

STILLWATER

1 IN 4 BATTER

EXISTING RIVERGUM BLVD ROUNDABOUT

RL. 6.45

RL. 6.46

RL. 6.58

RL. 6.51

RL. 6.65

RL. 6.52

RL. 6.64

RL. 6.55

RL. 6.68

6.40

6.40

6.50

6.50

6.60

6.60

6.60

1 IN 6 BATTER (TYP)

1 IN 6 BATTER (TYP)

1 IN 6 BATTER (TYP)

VALLEY LINE

RIDGE LINE

RIDGE LINE

VALLEY LINE

RIDGE LINE

VALLEY LINE

REFERENCE LINE FOR CROSS SECTIONS

160

140

120

100

80

60

40

20

180

FUTURE RIVERGUM BLVD

5.70

5.70

E= 51372.2869
N= 220872.1347

EXISTING BUBBLE UP PIT TO BE RETAINED

EXISTING OPEN DRAIN

ROAD RESERVE TO BE FILLED TO RL 5.70

18.0m FUTURE ROAD RESERVE

1 IN 1 COMPACTED BATTER

1 IN 3 BATTER

-19.350

B C.54

C C.55

A C.54

D C.55

NOTES

1. PROPOSED FENCE TO BE 1.8m MIN. HEIGHT CHAINLINK COVERED WITH SCREENING MATERIAL WITH 50% MIN. POROSITY.
2. TEMPORARY FENCING WITH SCREENING MATERIAL TO BE INSTALLED AT THE EXTENT OF EARTHWORKS DURING THE WORKS BY THE CONTRACTOR.
3. HYDROMULCH TO BE APPLIED TO ALL FINISHED EARTHWORK PADS AND BATTERS.

LEGEND

- SITE BOUNDARY
- EXTENT OF WORKS BOUNDARY
- PROPOSED FENCE
- PROPOSED BUILDING EARTHWORKS PAD
- PROPOSED FILL AREA RL 5.70
- 6.50 — PROPOSED BUILDING PAD EARTHWORKS LEVEL
- 6.50 — PROPOSED FINISHED EARTHWORKS CONTOUR
- RL. 6.05 — PROPOSED FINISHED EARTHWORKS LEVEL
- EXISTING DRAINAGE SWALE
- EXISTING CHAINLINK FENCE
- 6.10 — EXISTING GROUND LEVEL

TPG RECEIVED 18 JUNE 2014

REV	DATE	DESCRIPTION	RVD
C	30.04.14	ISSUED FOR TENDER	SW
B	17.04.14	RE-ISSUED FOR REVIEW	SW
A	04.04.14	ISSUED FOR REVIEW	SW

REVISIONS

Perth Office
484 Murray St Perth WA 6000
P/+61 8 6364 3300
E/info@bgeeng.com
bgeeng.com

BG&E DOCUMENT No: BFE-C53P7 P13332

Government of Western Australia
Department of Treasury and Finance
Building Management and Works

RIVERGUM SITE, BALDIVIS
FORWARD WORKS
FINISHED EARTHWORKS PLAN

DRAWN CK		DESIGNED AM	REDUCTION 0 25
CHECKED SW		PRINCIPAL	
APPROVED			
SCALE 1:500		DATE 02.04.14	DRAWING No. C.53 C
BMW PROJ No. 201-12979		BMW FILE No. 2013/11680	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY NAME TIME DATE

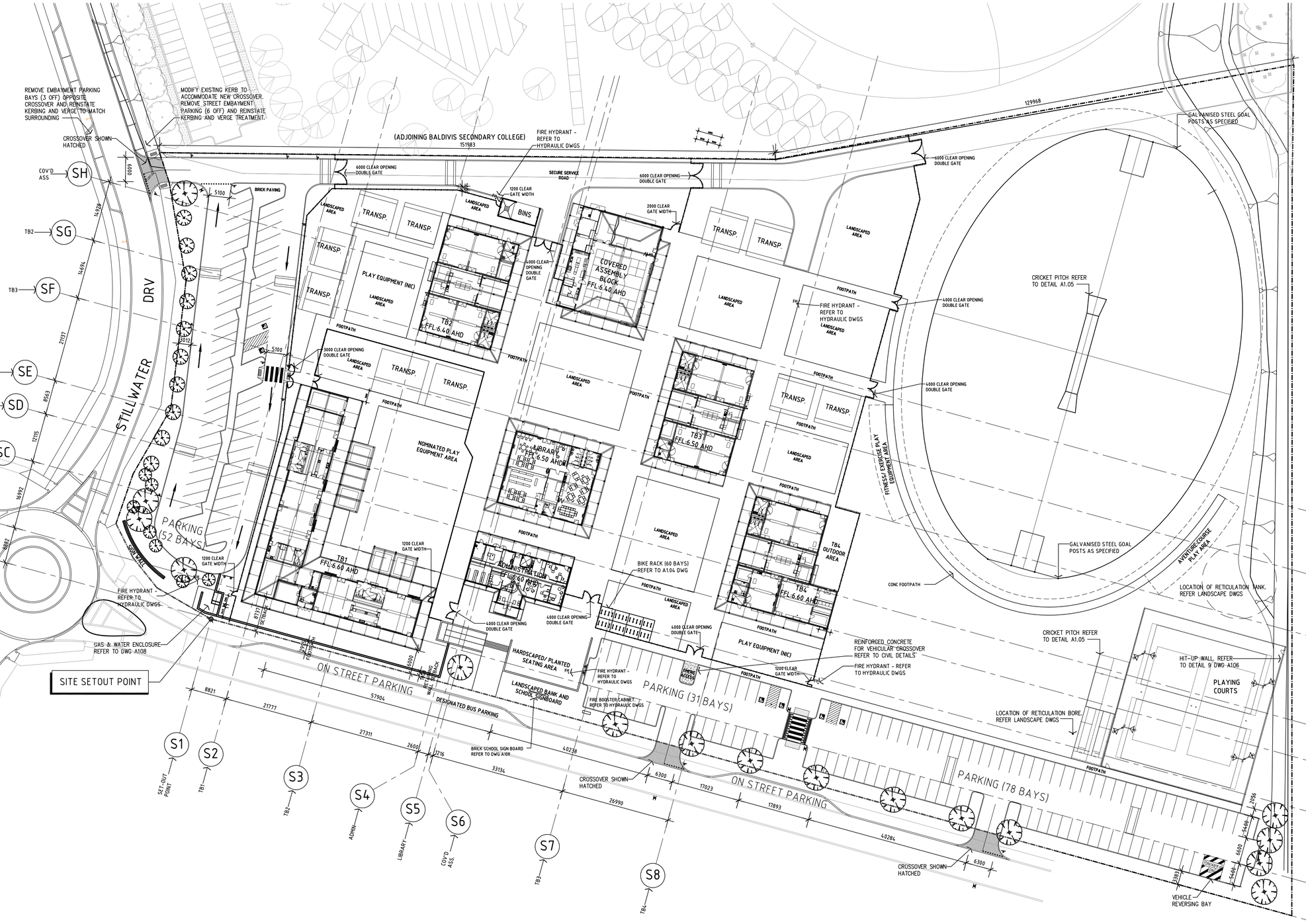
REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - DRAFT SD	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB
B	DD ISSUE	18.06.14	NB
C	ISSUED TO TRAFFIC CONSULTANT	21.07.14	NB
D	ISSUED TO QUANTITY SURVEYOR	23.07.14	NB
E	SET-OUT INFORMATION AND TRAFFIC ENG CHANGES	06.08.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

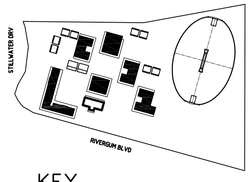
LEGEND

2100mm HIGH GARRISON SECURITY FENCE.



KEY PLAN

N.T.S.



PRELIMINARY

NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects

35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9380 8020 Fax: (08) 9380 8078
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

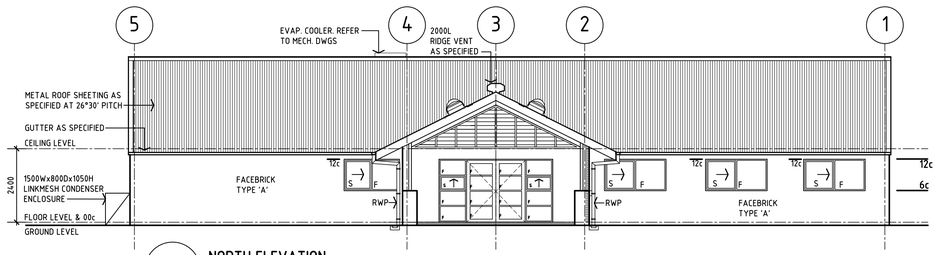
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

PROPOSED SITE PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:500	DATE MAY 2014	DRAWING No. A1.01 REV. E
DTF PROJ No. -	DTF FILE No. -	

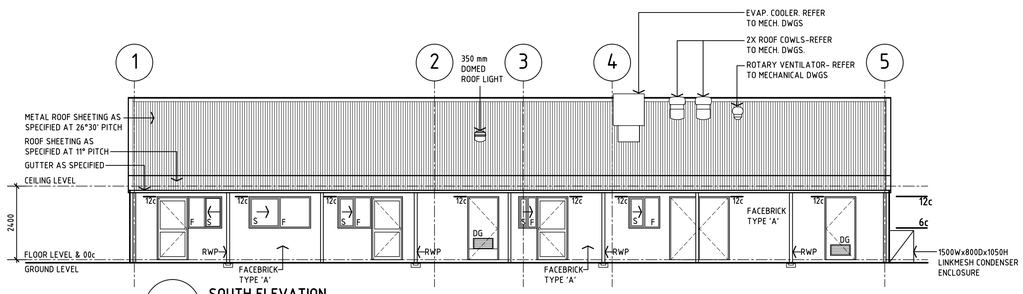
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029



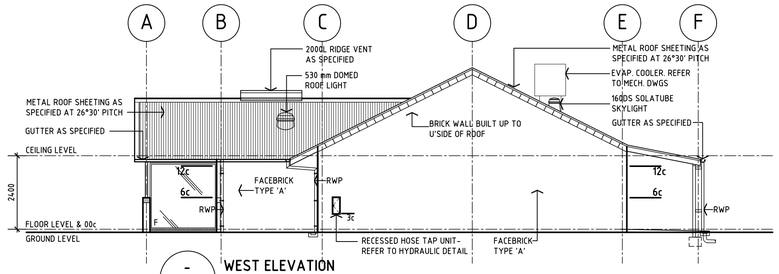
- A2.21 **NORTH ELEVATION**

SCALE 1:100



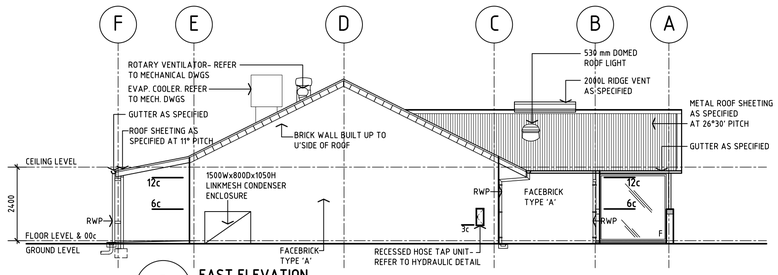
- A2.21 **SOUTH ELEVATION**

SCALE 1:100



- A2.21 **WEST ELEVATION**

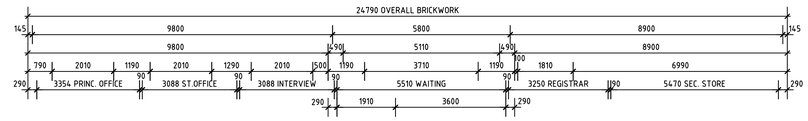
SCALE 1:100

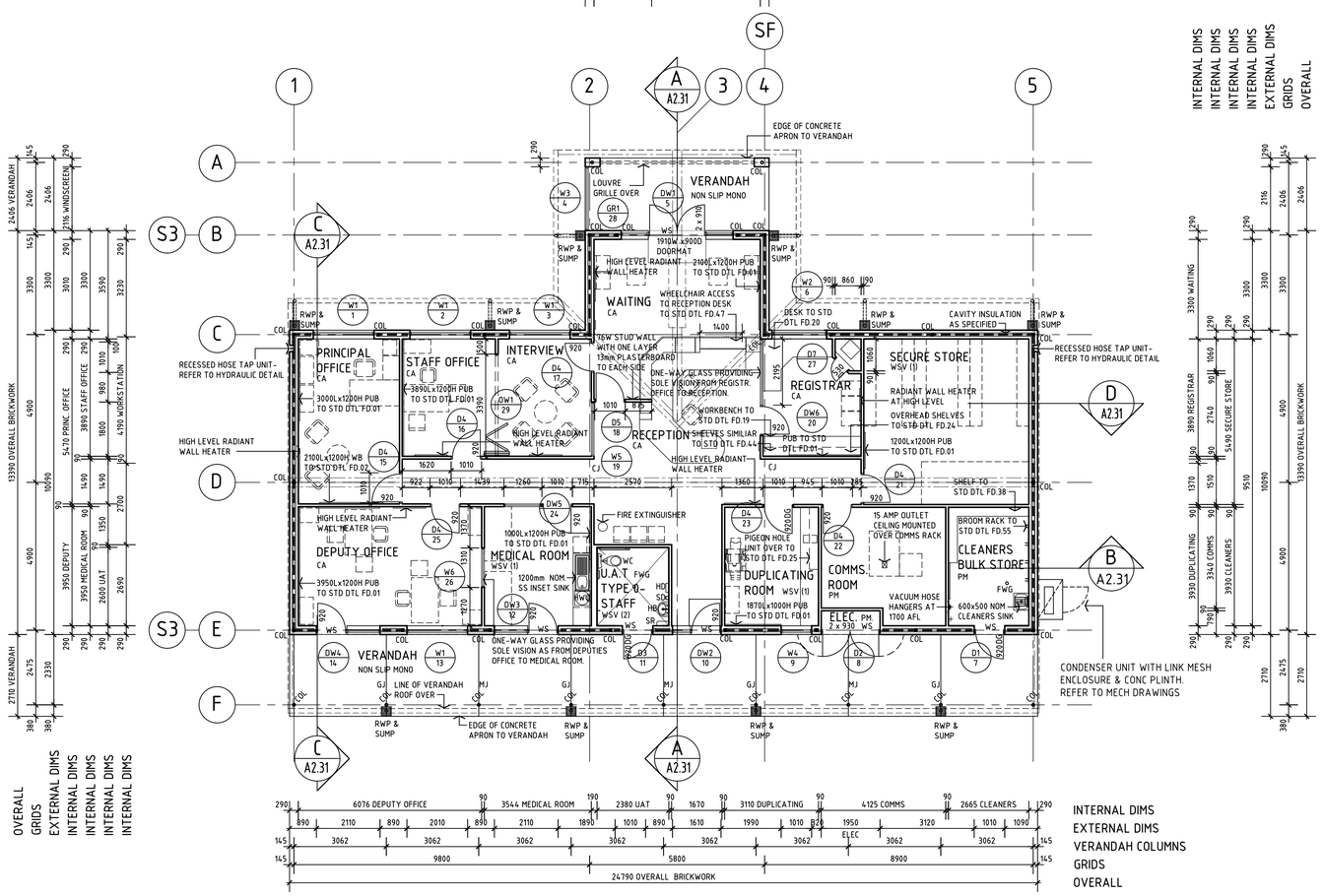


- A2.21 **EAST ELEVATION**

SCALE 1:100

OVERALL
GRIDS
EXTERNAL DIMS
EXTERNAL DIMS
INTERNAL DIMS





OVERALL
GRIDS
EXTERNAL DIMS
INTERNAL DIMS
INTERNAL DIMS
INTERNAL DIMS
INTERNAL DIMS

INTERNAL DIMS
EXTERNAL DIMS
VERANDAH COLUMNS
GRIDS
OVERALL

- **FLOOR PLAN**

SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

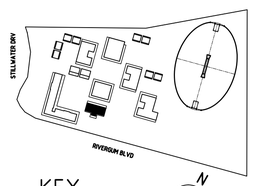
SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz



KEY PLAN N.T.S.

NORTH

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

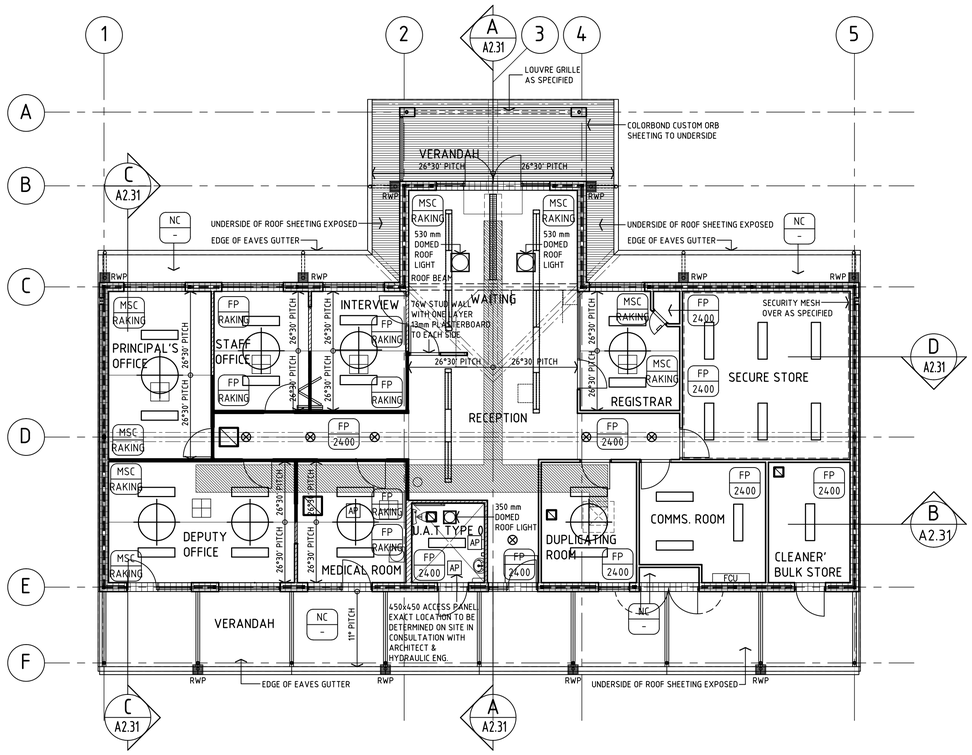
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

ADMINISTRATION BLOCK
FLOOR PLAN & ELEVATIONS

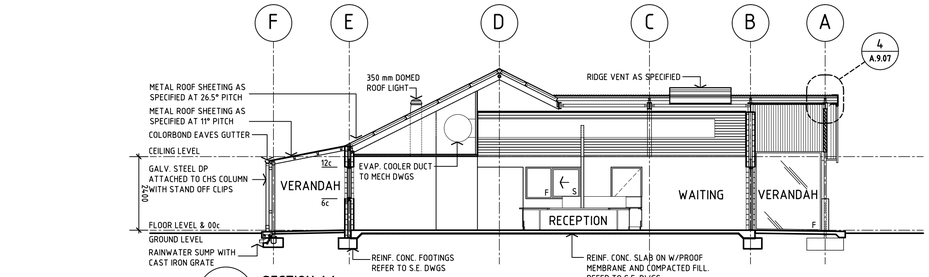
DRAWN AT	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A2.21 REV. A
DTF PROJ No. -	DTF FILE No. -	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

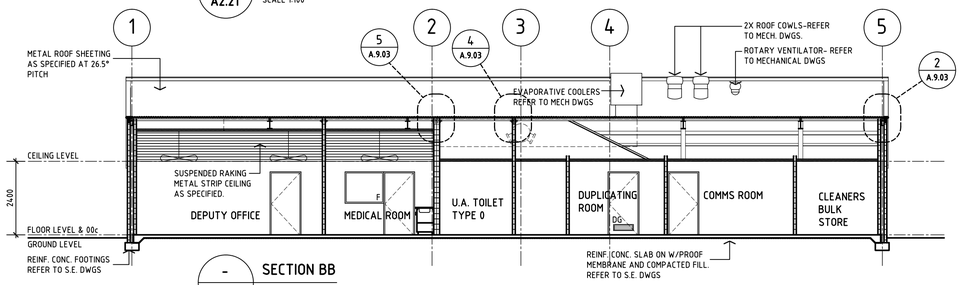
BA JOB NO. 13-029



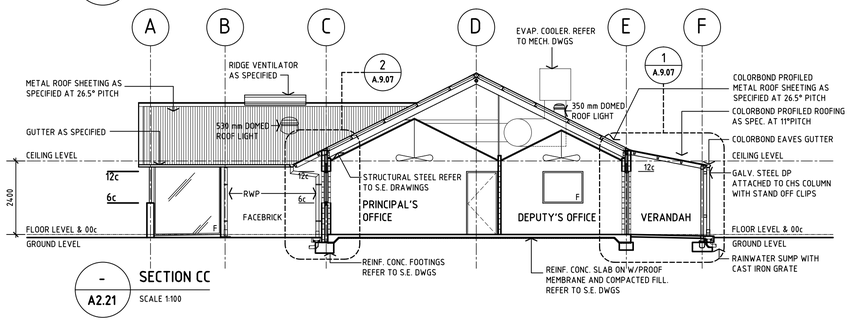
- A2.21 **CEILING PLAN**
SCALE 1:100



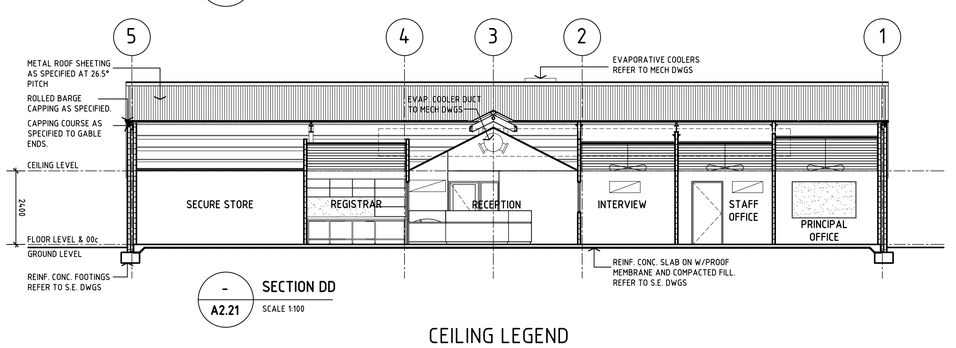
- A2.21 **SECTION AA**
SCALE 1:100



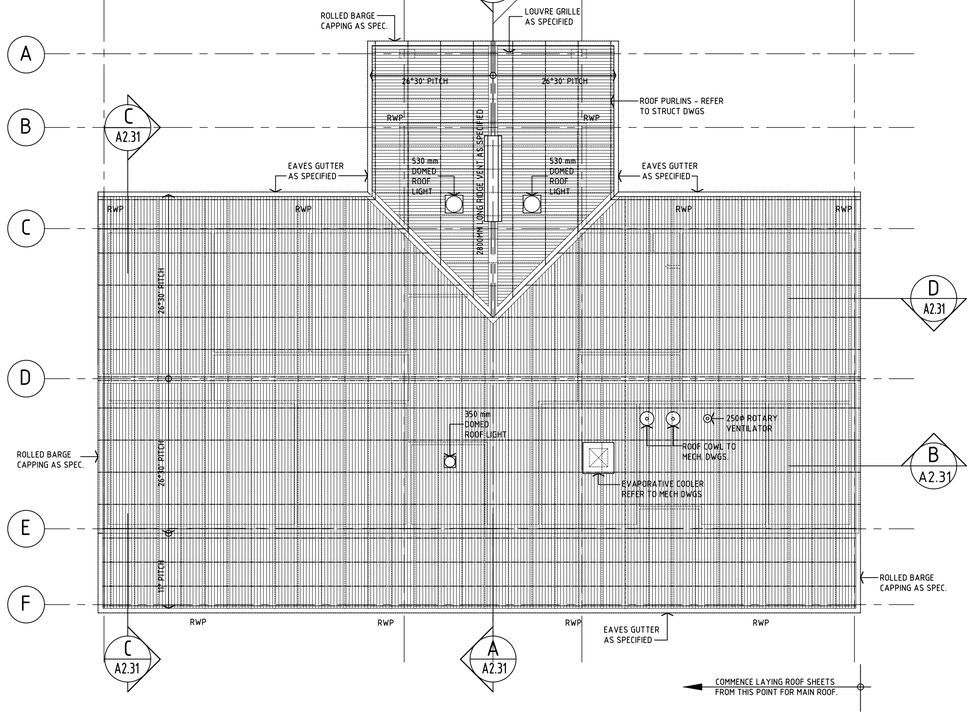
- A2.21 **SECTION BB**
SCALE 1:100



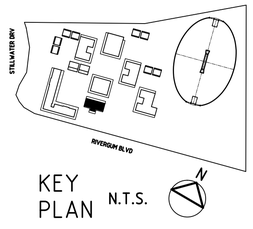
- A2.21 **SECTION CC**
SCALE 1:100



- A2.21 **SECTION DD**
SCALE 1:100



- A2.21 **ROOF PLAN**
SCALE 1:100



KEY PLAN N.T.S.

CEILING LEGEND

GENERAL:

- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP / - — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC / - — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC / - — NO CEILING
- PFBI / - — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED

NORTH

REV.	DESCRIPTION	DATE	APPD
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

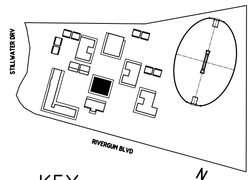
ADMINISTRATION BLOCK
ROOF PLAN, CEILING PLAN & SECTIONS

DRAWN AT	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A2.31 / REV. A
DTF PROJ No. -	DTF FILE No. -	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

- - - SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

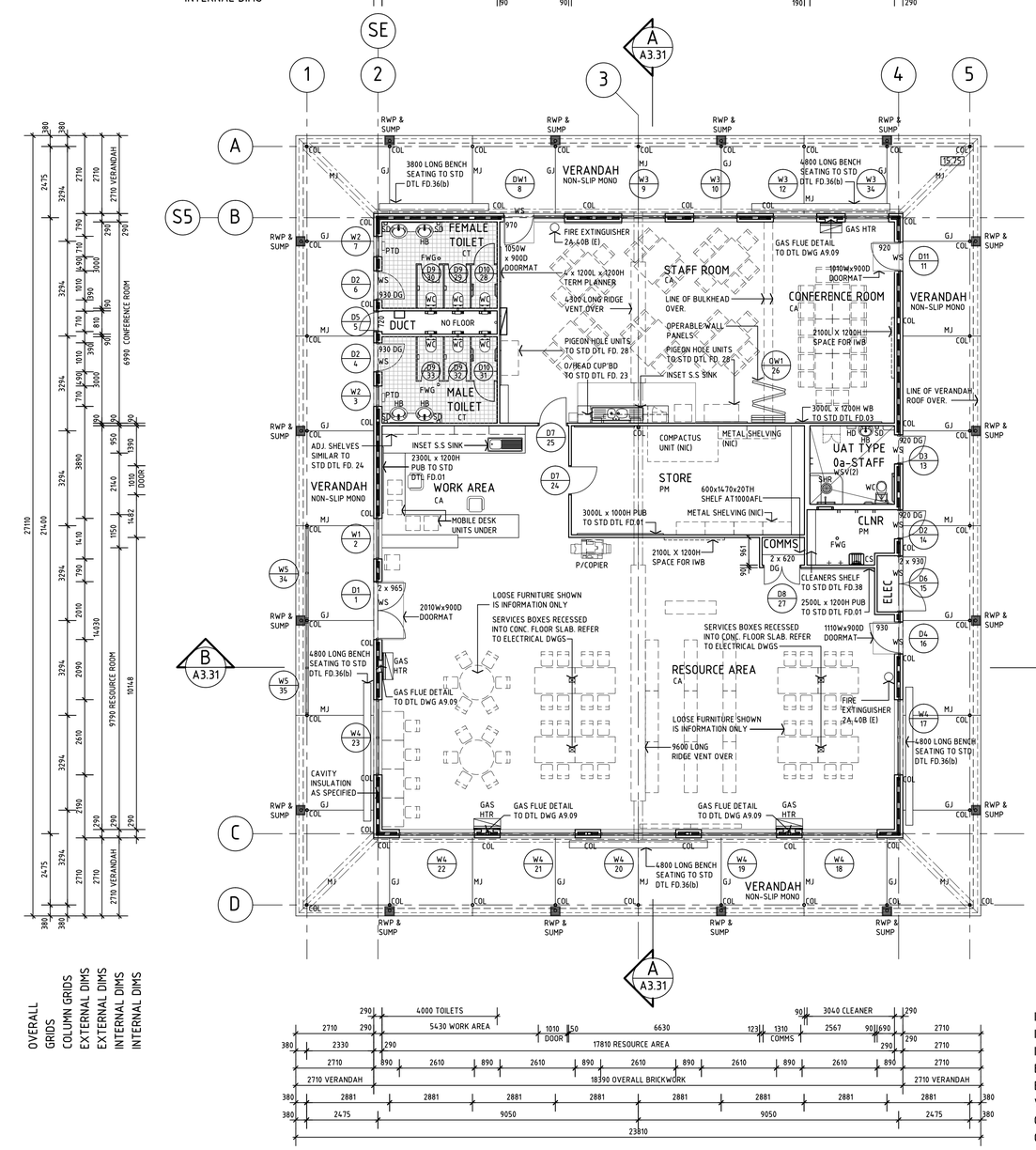
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

LIBRARY & STAFFROOM BLOCK
FLOOR PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A3.21	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

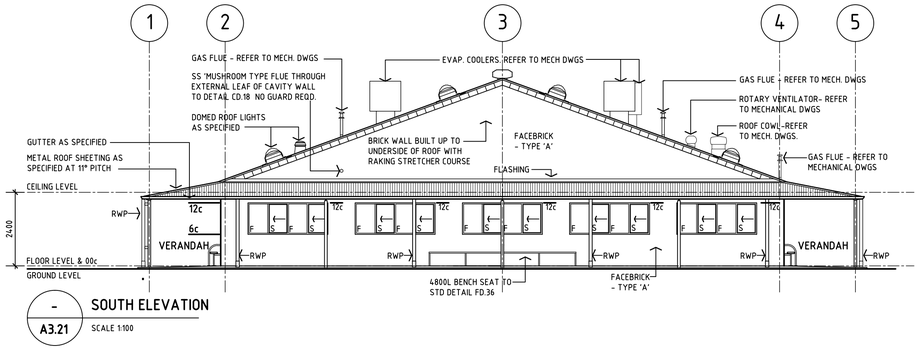
BA JOB NO: 13-029



FLOOR PLAN
SCALE 1:100

NORTH

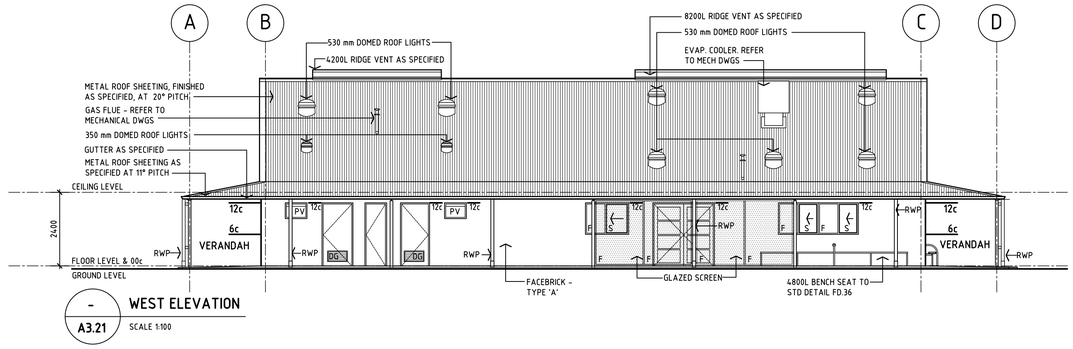
REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - DRAFT SD	13.05.2014	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.2014	NB



-
A3.21

SOUTH ELEVATION

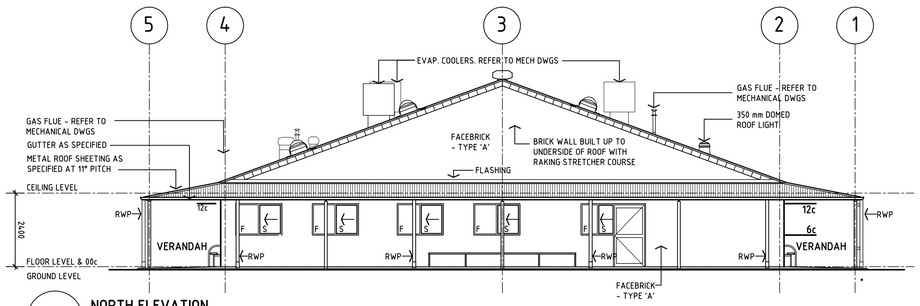
SCALE 1:100



-
A3.21

WEST ELEVATION

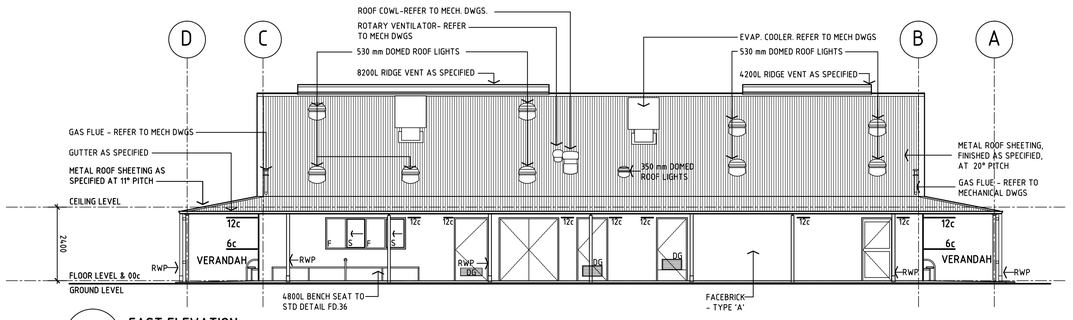
SCALE 1:100



-
A3.21

NORTH ELEVATION

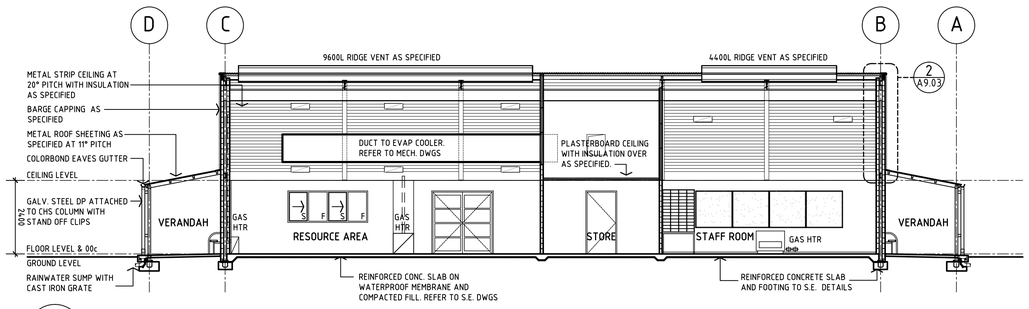
SCALE 1:100



-
A3.21

EAST ELEVATION

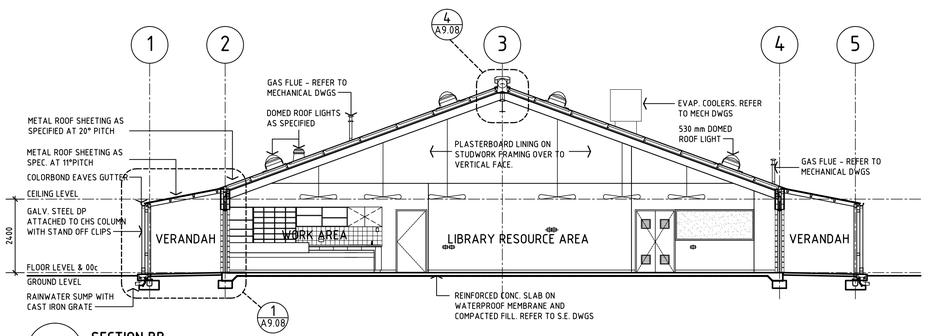
SCALE 1:100



-
A3.21

SECTION AA

SCALE 1:100



-
A3.21

SECTION BB

SCALE 1:100

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY

NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

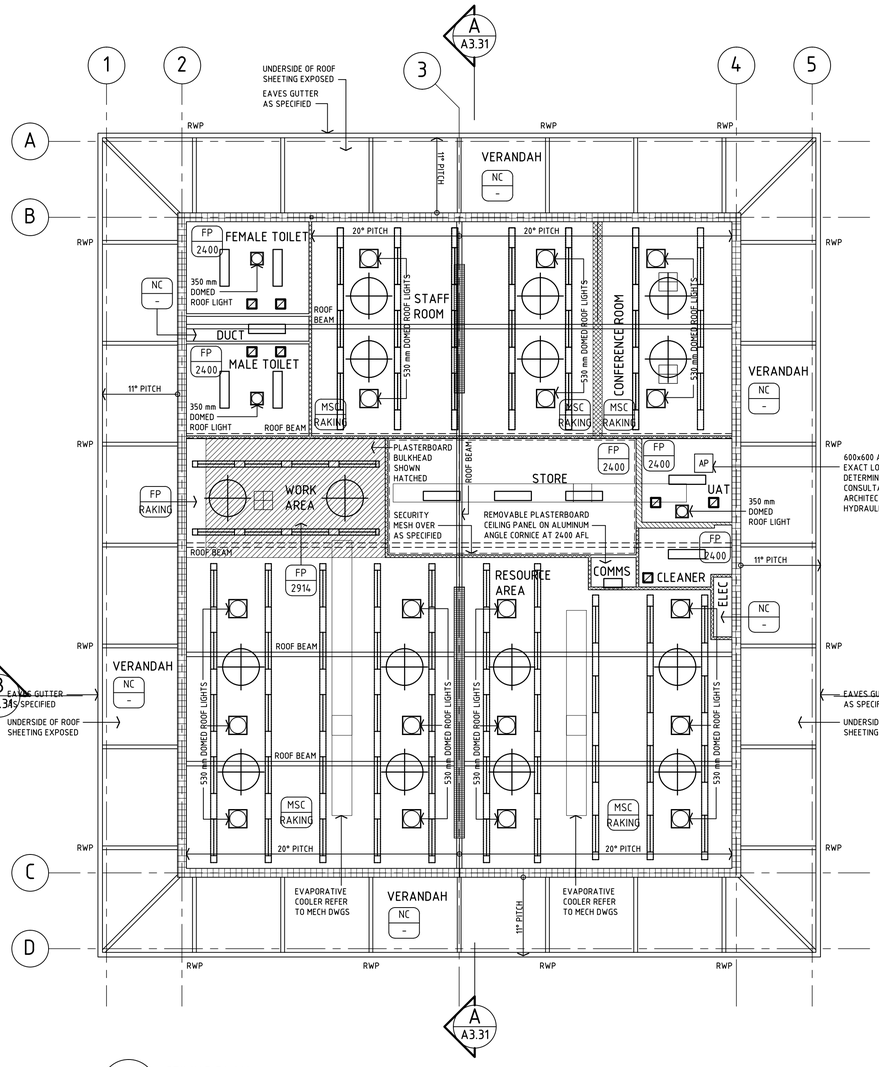
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

LIBRARY & STAFFROOM BLOCK
ELEVATIONS

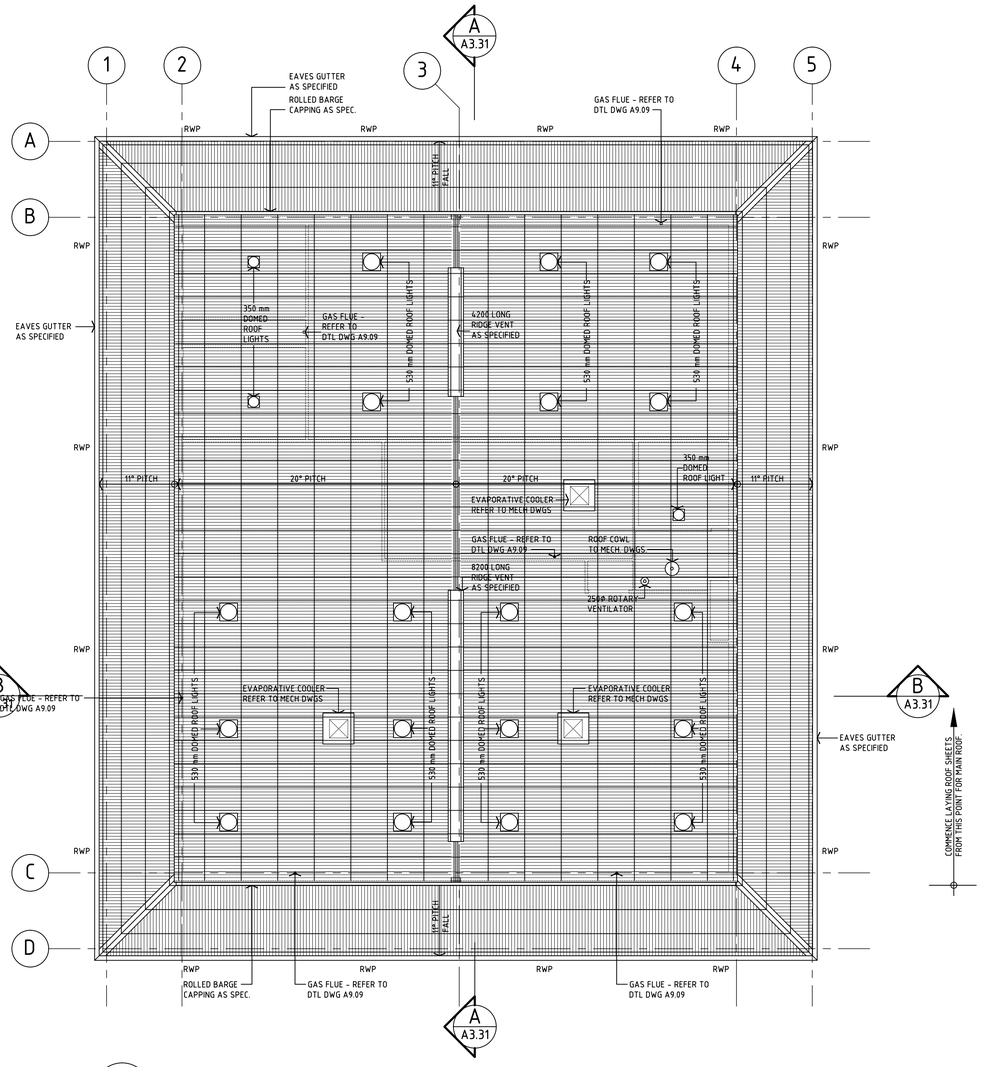
DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A3.31	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

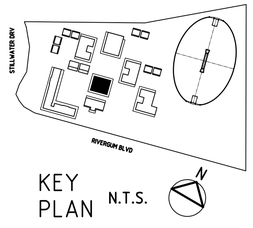
BA JOB NO: 13-029



- CEILING PLAN
- SCALE 1:100



- ROOF PLAN
- SCALE 1:100



KEY PLAN N.T.S.

CEILING LEGEND

GENERAL:

- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP - — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC - — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC - — NO CEILING
- PFBI - — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED

NORTH

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

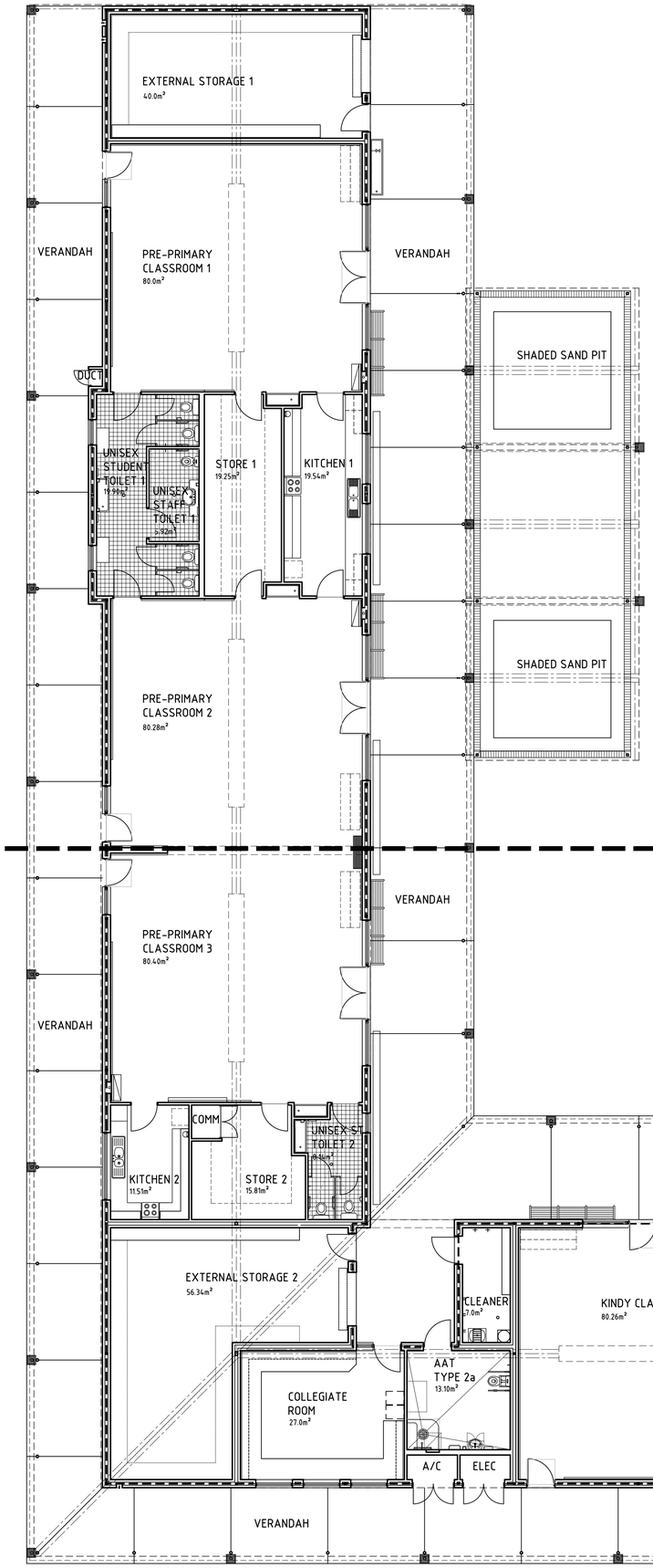
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

LIBRARY & STAFFROOM BLOCK
CEILING & ROOF PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A3.61 / REV. A
DTF PROJ No. -	DTF FILE No. -	

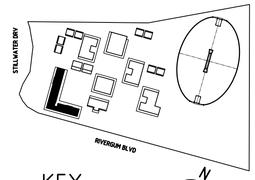
THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO. 13-029



NOTE:
REFER TO DRAWING A4.22
FOR PART-PLAN DETAIL

NOTE:
REFER TO DRAWING A4.23
FOR PART-PLAN DETAIL



KEY PLAN N.T.S.

NORTH

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE; OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

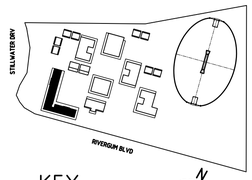
TEACHING BLOCK 1
OVERALL FLOOR PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.21	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

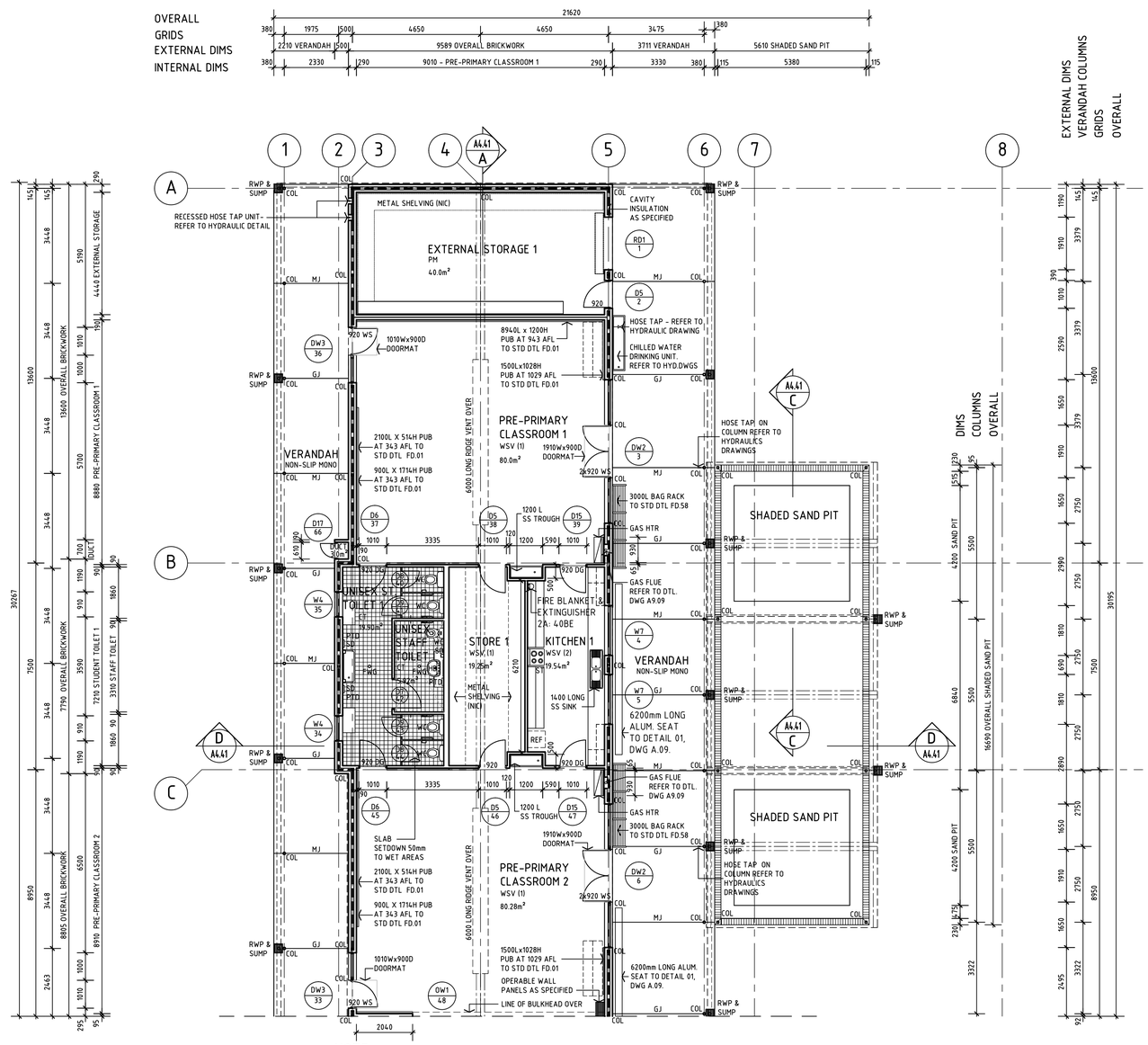
1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

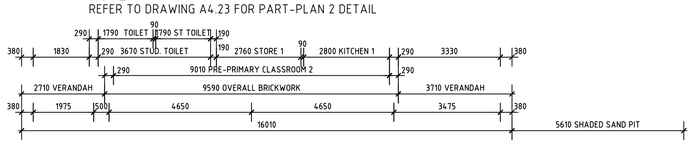
BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER



NOTE:
REFER TO DRAWING A4.23 FOR PART-PLAN 2 DETAIL



TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 1
FLOOR PLAN 1 of 2

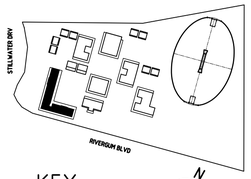
DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.22 / REV. A
DTF PROJ No. -	DTF FILE No. -	

NORTH

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

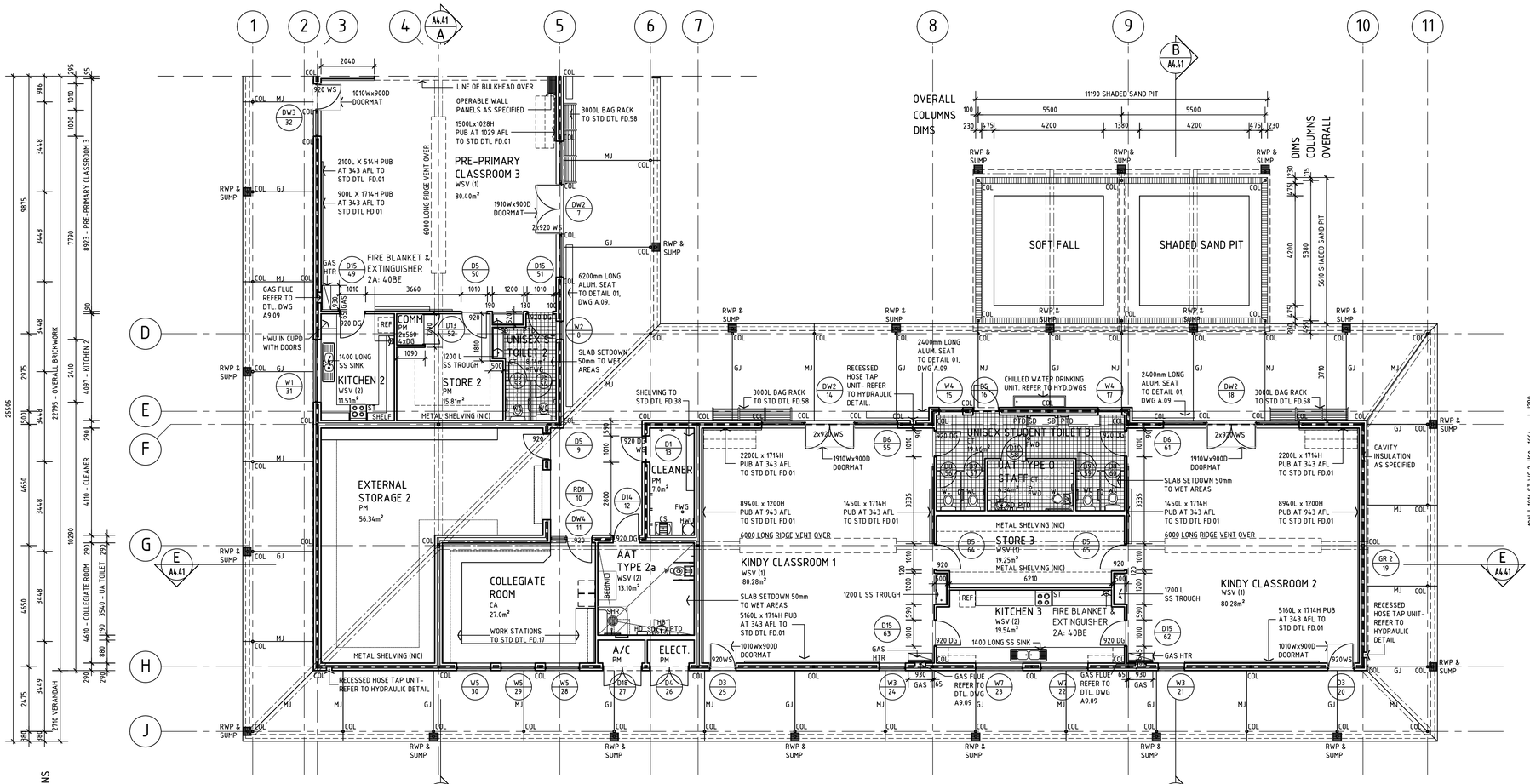
SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

OVERALL
GRIDS
VERANDAH COLUMNS
EXTERNAL DIMS
EXTERNAL DIMS
INTERNAL DIMS
INTERNAL DIMS

45810
380 2475 4650 4650 3475 1825 9000 7500 9000 2475 380
380 2330 3330 3142 3142 3142 2750 2750 2750 3116 3116 380
9590 - OVERALL BRICKWORK 3010 11000 OVERALL BRICKWORK 7790 OVERALL BRICKWORK 9000 OVERALL BRICKWORK
1610 790 1010 100 4590 1650 1910 1650 1200 390 910 890 1010 3790 910 890 1200 1650 1910 1650 2590
2710 VERANDAH 290 9010 - PRE- PRIMARY CLASSROOM 3 290 3710 VERANDAH
290 2810 - KITCHEN 2 190 4080 - STORE 2 90 1940 ST TOILET 290

NOTE:
REFER TO DRAWING A4.22 FOR PART-PLAN 1 DETAIL



OVERALL
GRIDS
VERANDAH COLUMNS
EXTERNAL DIMS
EXTERNAL DIMS
INTERNAL DIMS
INTERNAL DIMS

290 8510 EXTERNAL STORE 1 290 3510 290 1710 - CLNR 290 8910 - KINDY CLASSROOM 1 90 1860 190 3310 - ST TOILET 2 90 1860 190 8910 KINDY CLASSROOM 2 290
290 4360 - EXTERNAL STORE 1 290 5870 - COLLEGIATE ROOM 190 3700 - UA TOILET 290 90 STORE 3/KITCHEN 3 90
5490 1310 890 1310 890 1310 890 1510 290 1510 790 1010 5490 1010 2690 1810 690 1810 2690 1010 5490 1010 490
2710 VERANDAH 40390 OVERALL BRICKWORK 2710 VERANDAH
380 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 3465 380
380 2475 4650 4650 3475 1825 9000 7500 9000 2475 380
45810

INTERNAL DIMS
INTERNAL DIMS
EXTERNAL DIMS
EXTERNAL DIMS
VERANDAH COLUMNS
GRIDS
OVERALL

NORTH

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

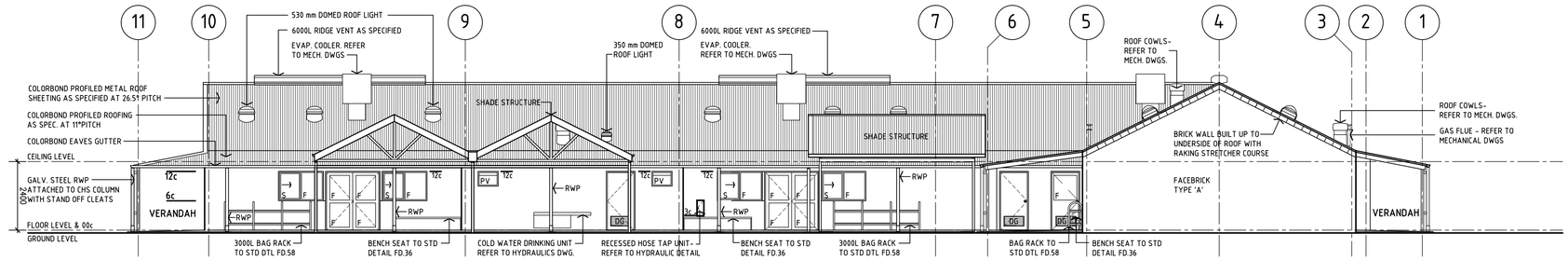
TEACHING BLOCK 1
FLOOR PLAN 2 of 2

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.23	REV. A
DTF PROJ No. -	DTF FILE No. -		

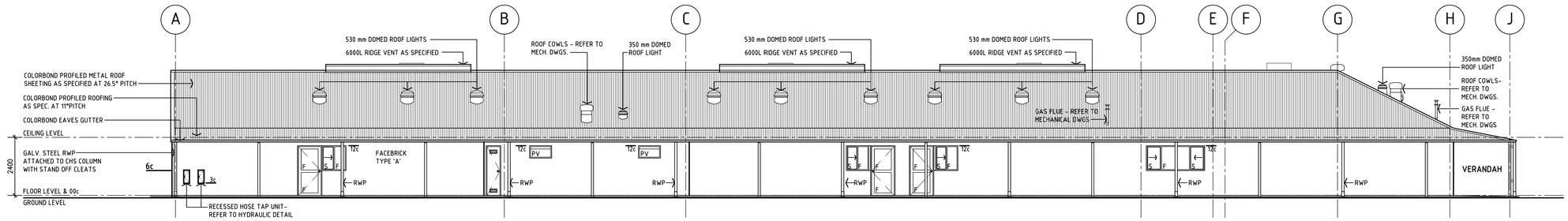
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029

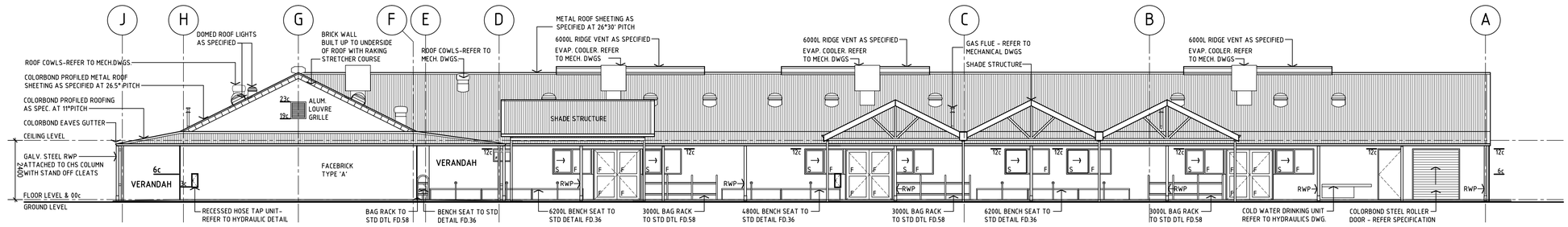
REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



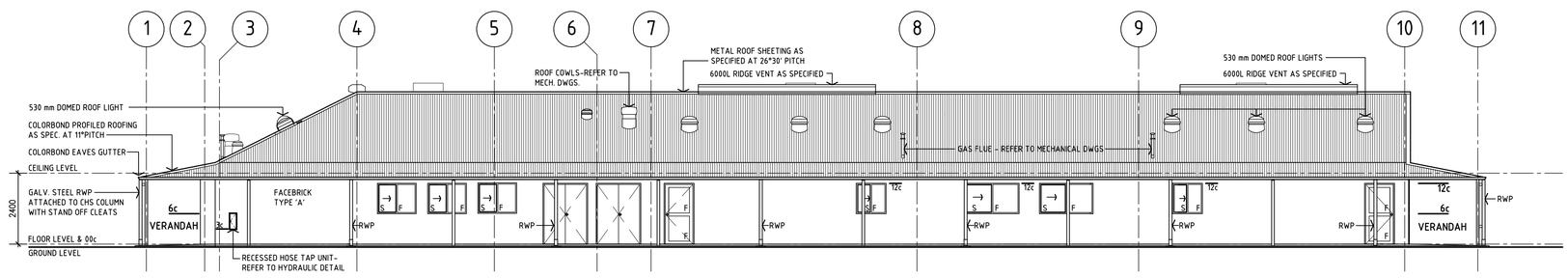
1 – NORTH ELEVATION
SCALE 1:100



2 – WEST ELEVATION
SCALE 1:100



3 – EAST ELEVATION
SCALE 1:100



4 – SOUTH ELEVATION
SCALE 1:100

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 – DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

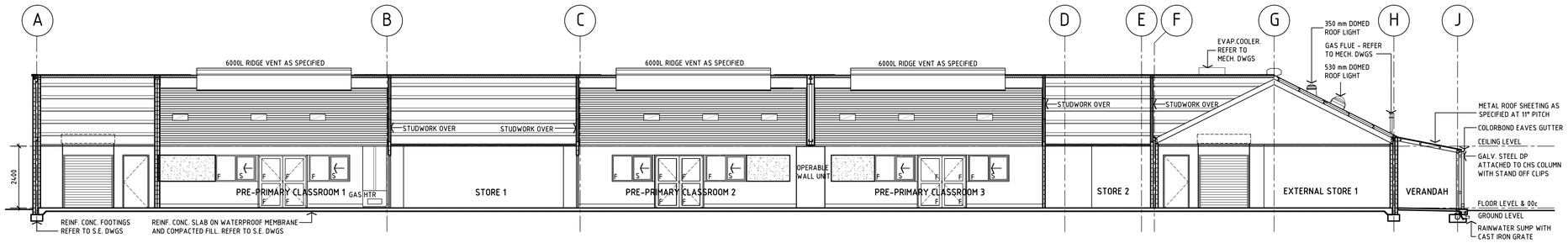
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 1
ELEVATIONS

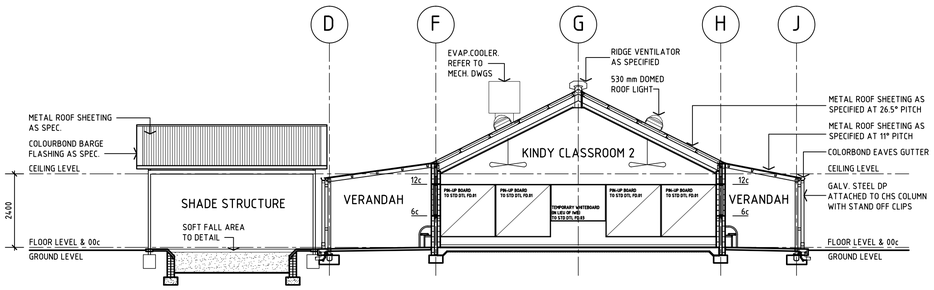
DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.31 / REV. A
DTF PROJ No. -	DTF FILE No. -	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

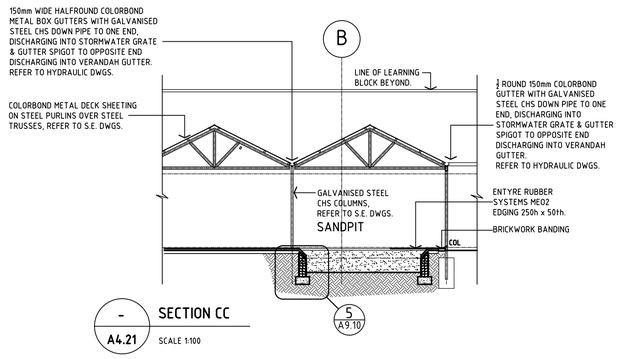
BA JOB NO: 13-029



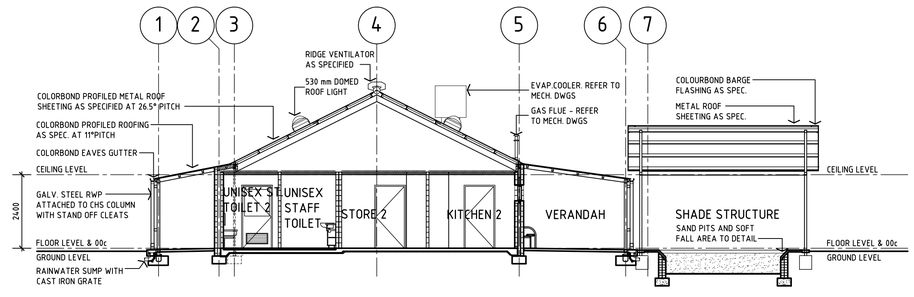
- / A4.21 **SECTION AA**
SCALE 1:100



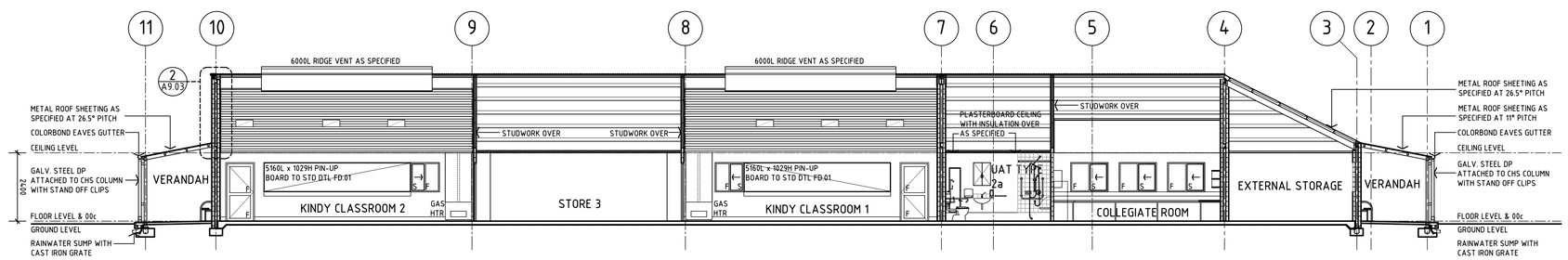
- / A4.21 **SECTION BB**
SCALE 1:100



- / A4.21 **SECTION CC**
SCALE 1:100



- / A4.21 **SECTION DD**
SCALE 1:100



- / A4.21 **SECTION EE**
SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8230 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 1
SECTIONS

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.41	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

CEILING LEGEND

GENERAL:

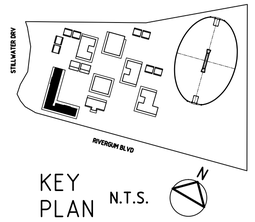
- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP / - — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC / - — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC / - — NO CEILING
- PFBI / - — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect.

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 1
CEILING PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A4.61	REV. A
DTF PROJ No. -	DTF FILE No. -		

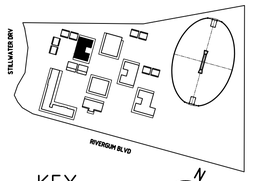
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029

- - CEILING PLAN
SCALE 1:100

NORTH

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE

OPENING NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

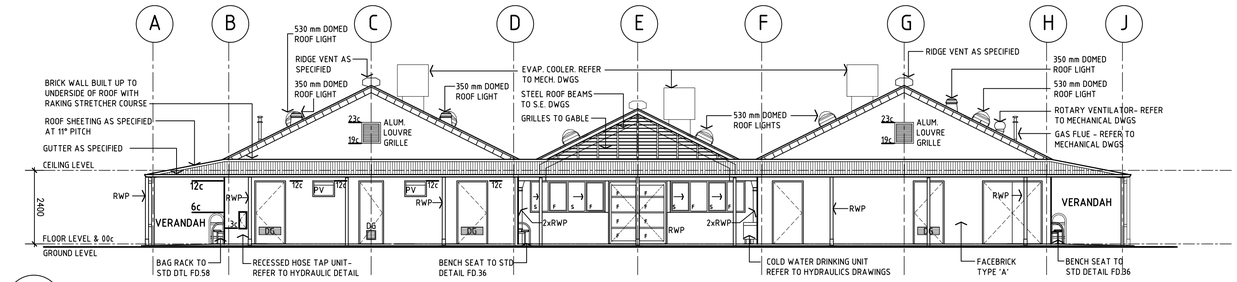
TEACHING BLOCK 2
FLOOR PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A5.21 / REV. A
DTF PROJ No. -	DTF FILE No. -	

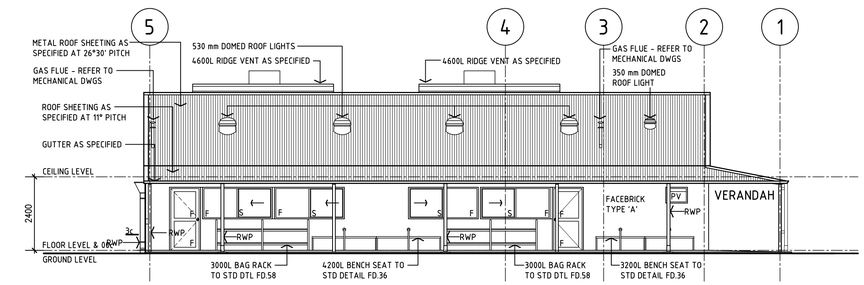
THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO: 13-029

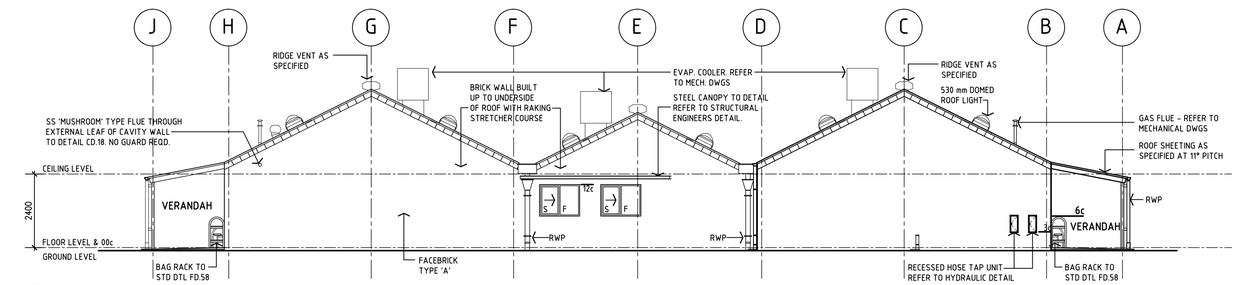
NORTH



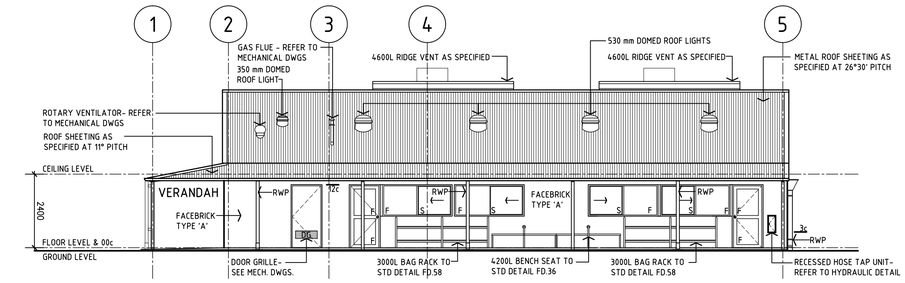
1 – EAST ELEVATION
SCALE 1:100



2 – SOUTH ELEVATION
SCALE 1:100



3 – WEST ELEVATION
SCALE 1:100



4 – NORTH ELEVATION
SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 – DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE; OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8230 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

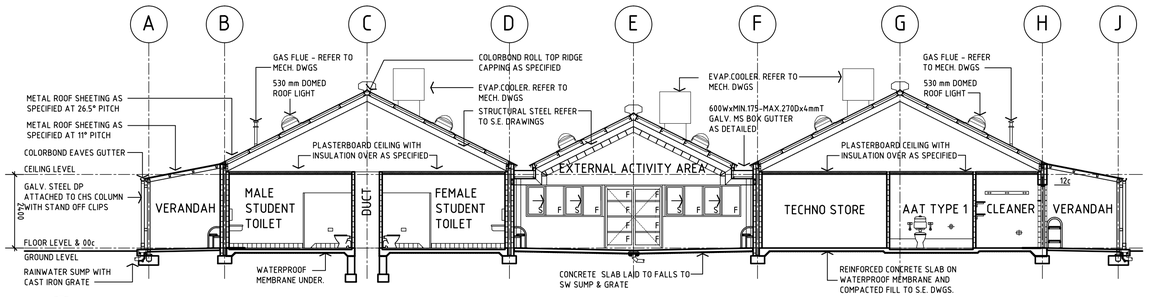
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 2
ELEVATIONS

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A5.31	REV. A
DTF PROJ No. -	DTF FILE No. -		

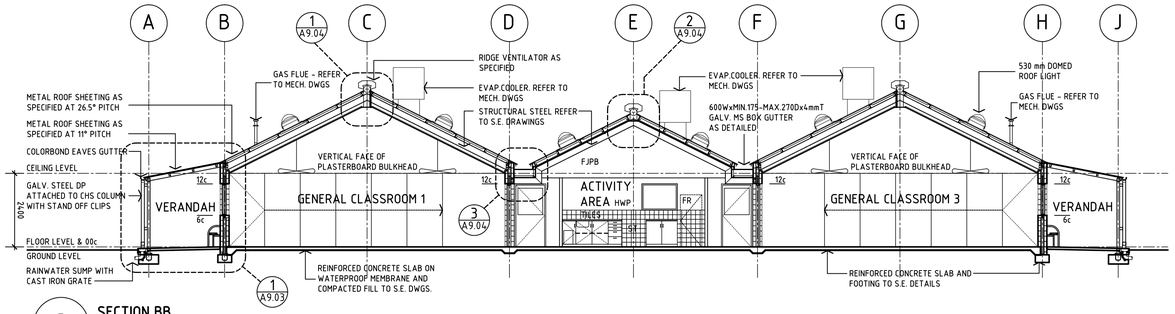
THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO: 13-029



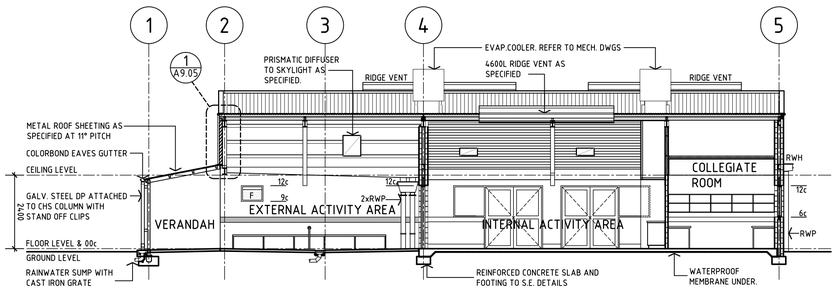
- / A5.21 **SECTION AA**

SCALE 1:100



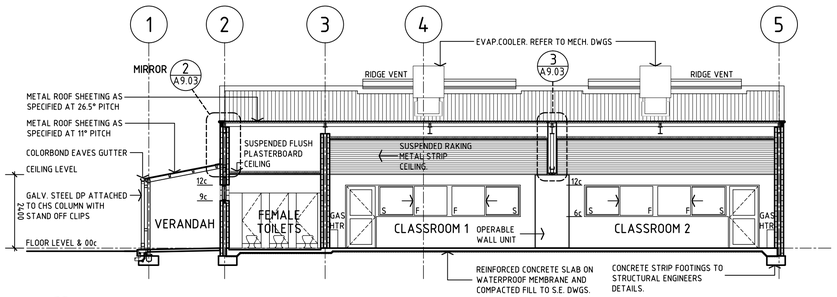
- / A5.21 **SECTION BB**

SCALE 1:100



- / A5.21 **SECTION CC**

SCALE 1:100



- / A5.21 **SECTION DD**

SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY

NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8230 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

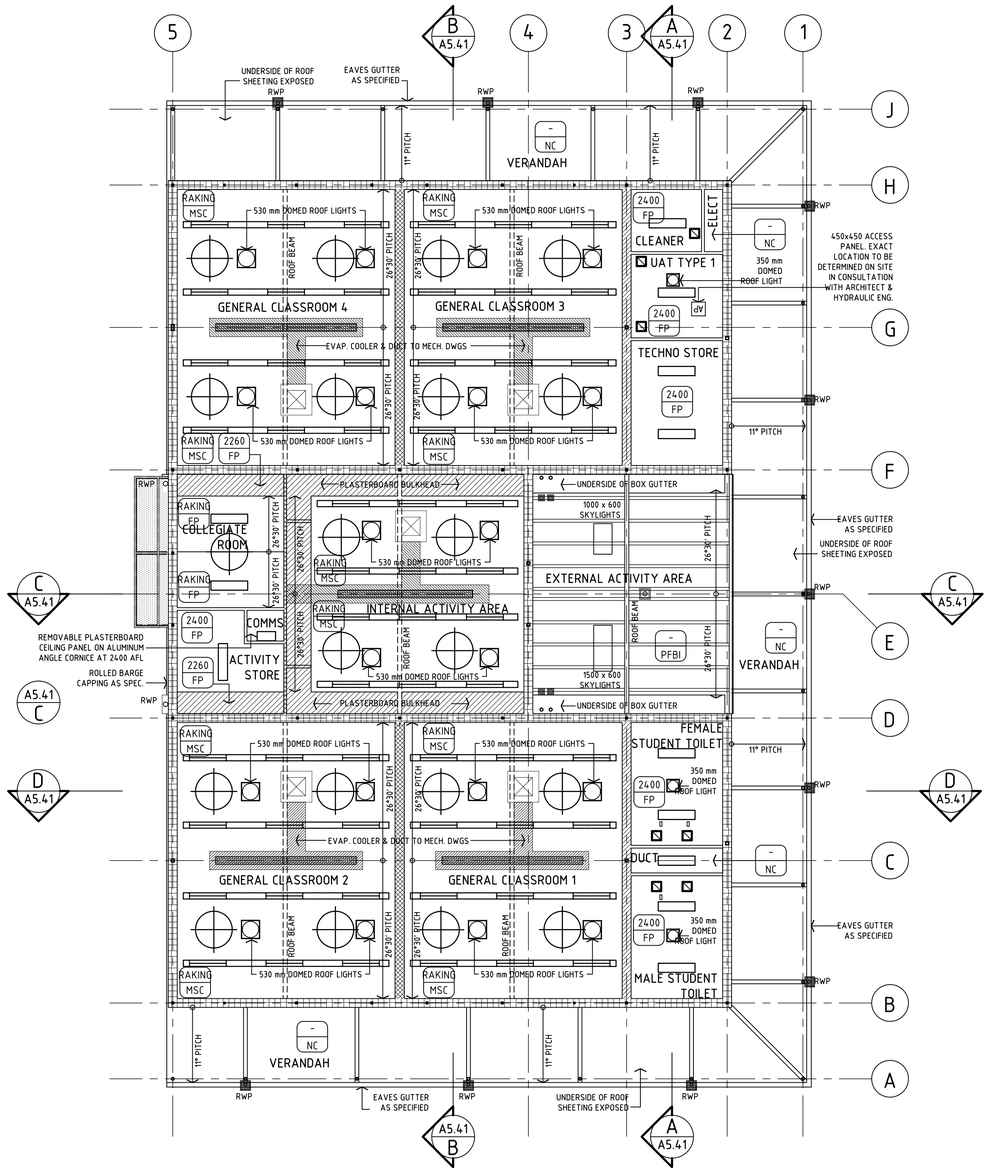
TEACHING BLOCK 2
SECTIONS

DRAWN AT	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A5.41 / REV. A
DTF PROJ No. -	DTF FILE No. -	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



CEILING LEGEND

GENERAL:

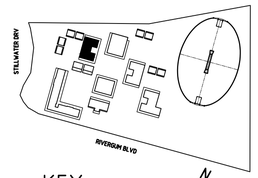
- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP / - — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC / - — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC / - — NO CEILING
- PFBI / - — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

- CEILING PLAN
- SCALE 1:100

NORTH

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

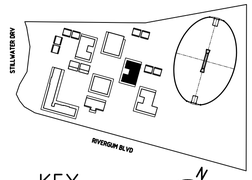
TEACHING BLOCK 2
CEILING PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A5.61	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

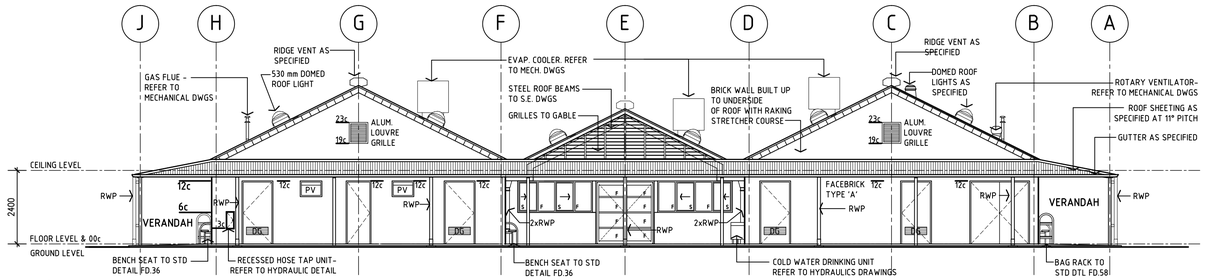
TEACHING BLOCK 3
FLOOR PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A6.21	REV. A
DTF PROJ No. -	DTF FILE No. -		

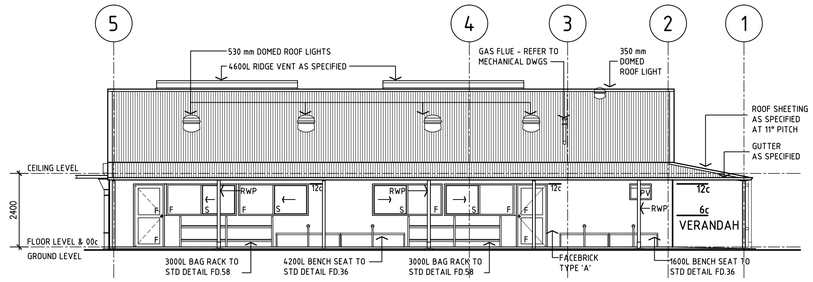
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

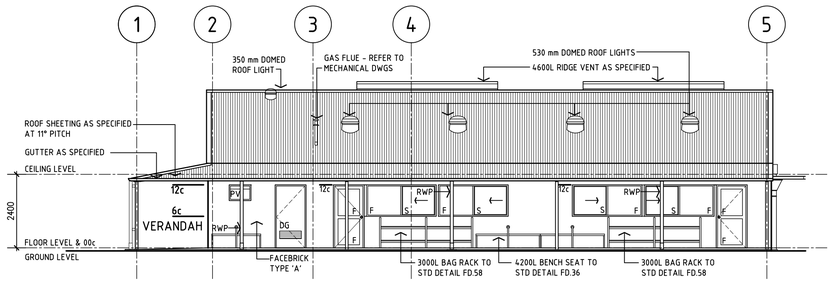
NORTH



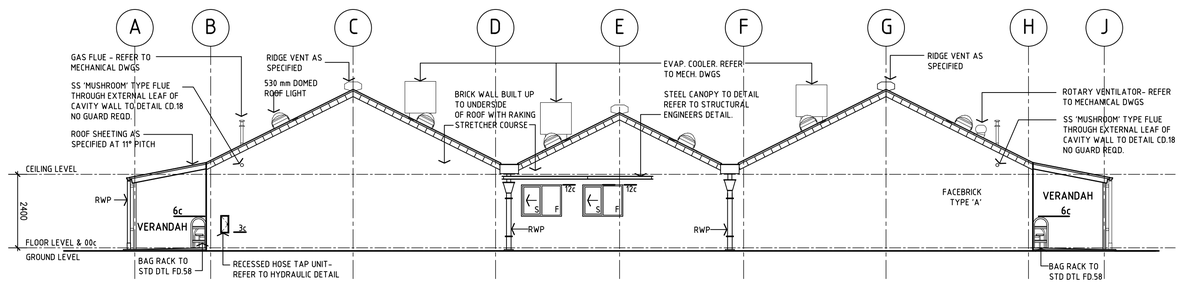
1 – WEST ELEVATION
SCALE 1:100



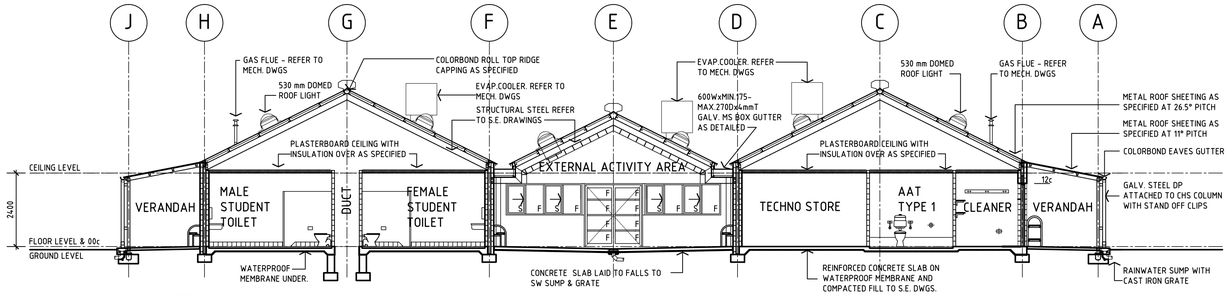
2 – NORTH ELEVATION
SCALE 1:100



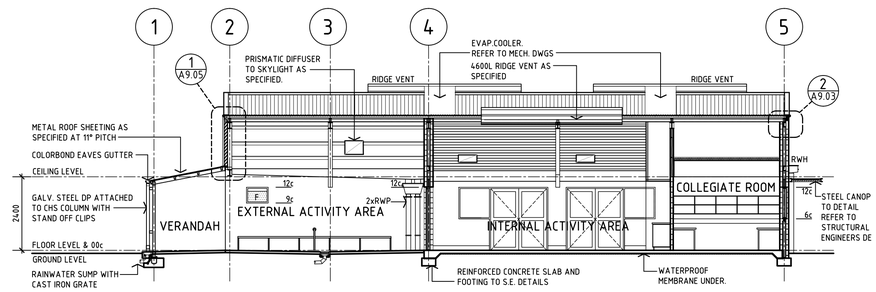
3 – SOUTH ELEVATION
SCALE 1:100



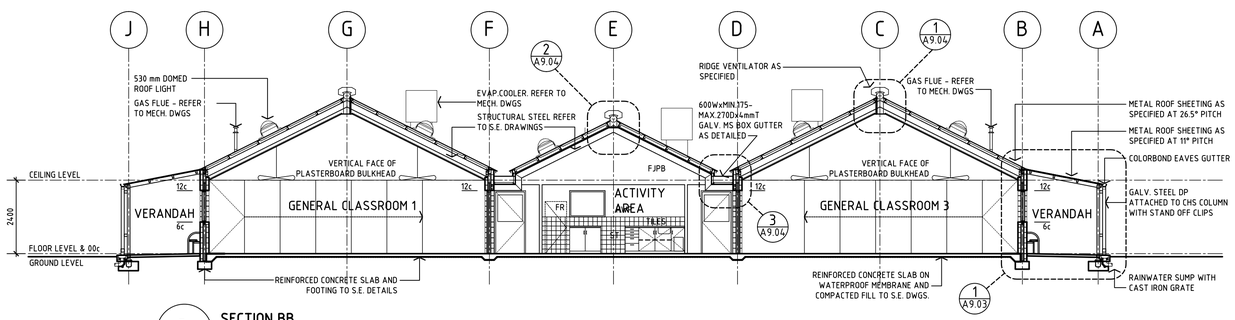
4 – EAST ELEVATION
SCALE 1:100



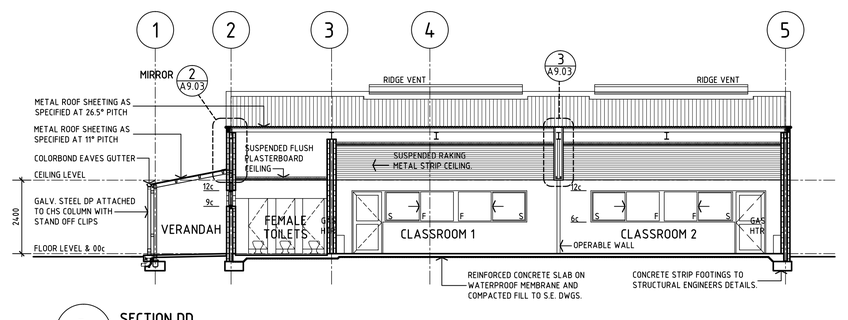
– / A6.21 – SECTION AA
SCALE 1:100



– / A6.21 – SECTION CC
SCALE 1:100



– / A6.21 – SECTION BB
SCALE 1:100



– / A6.21 – SECTION DD
SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 – DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

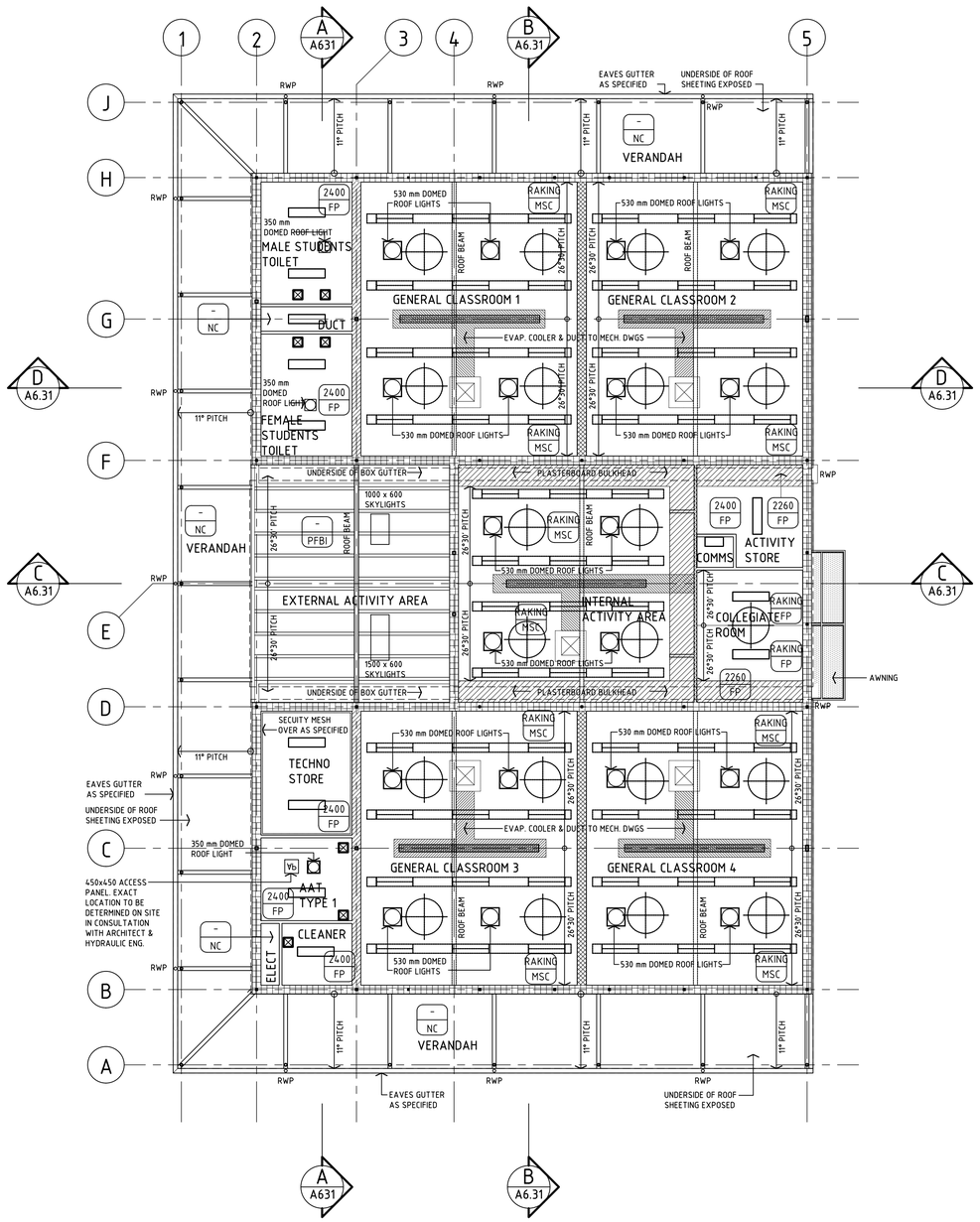
TEACHING BLOCK 3
ELEVATIONS & SECTIONS

DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A6.31 / REV. A
DTF PROJ No. –	DTF FILE No. –	

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

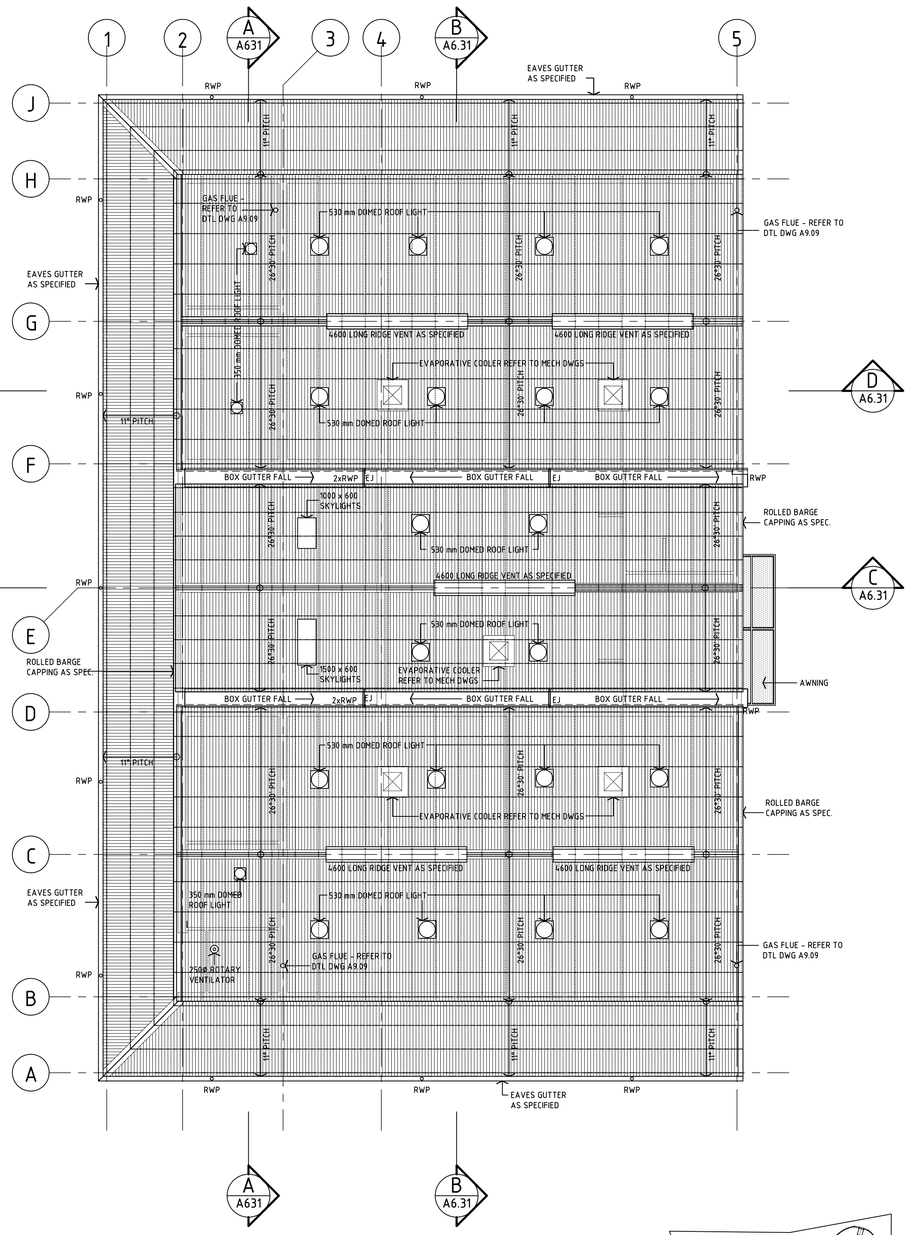
BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



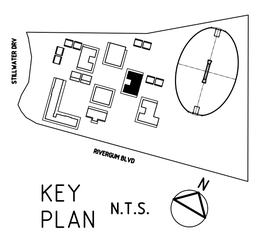
CEILING PLAN

SCALE 1:100



ROOF PLAN

SCALE 1:100



KEY PLAN N.T.S.

NORTH

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY

NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects

35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

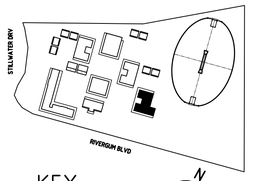
TEACHING BLOCK 3
CEILING & ROOF PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A6.61	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE; OPENING NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

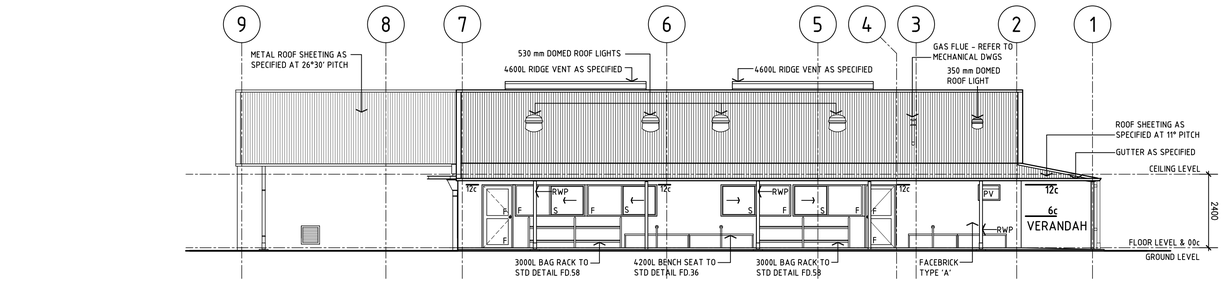
TEACHING BLOCK 4
FLOOR PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A7.21	REV. A
DTF PROJ No. -	DTF FILE No. -		

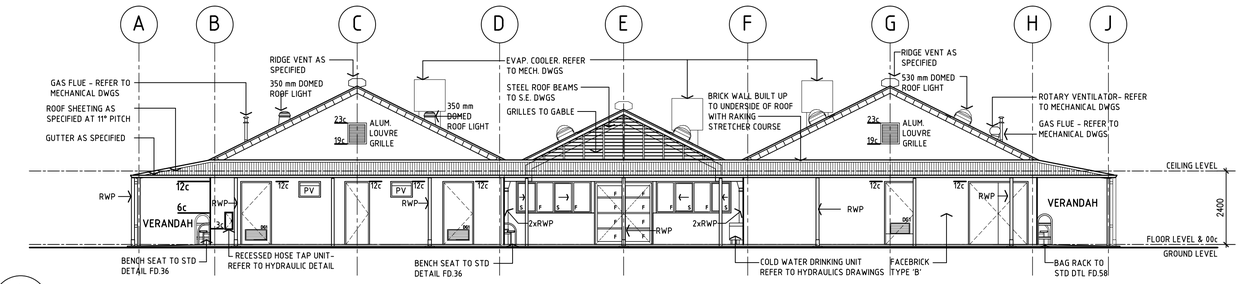
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

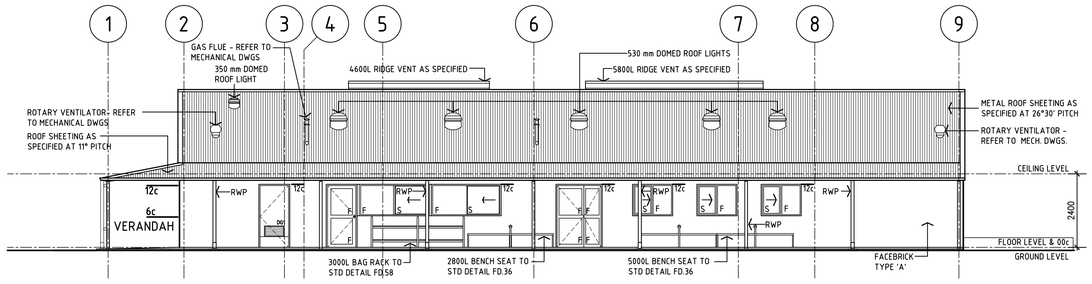
NORTH



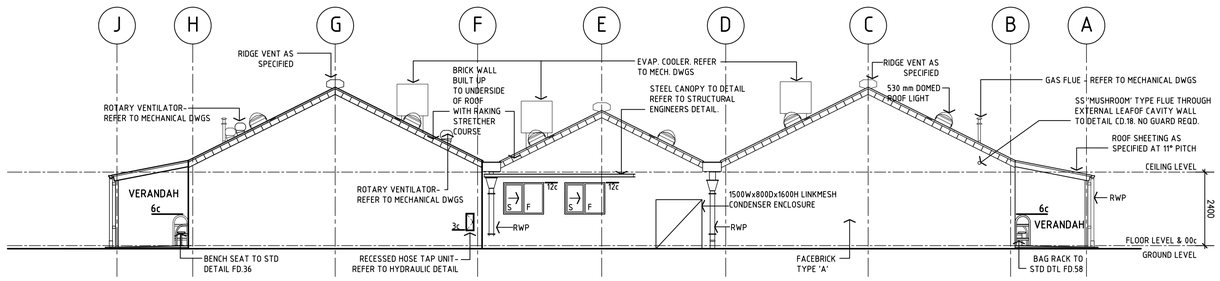
1 – NORTH ELEVATION
SCALE 1:100



2 – WEST ELEVATION
SCALE 1:100



3 – SOUTH ELEVATION
SCALE 1:100



4 – WEST ELEVATION
SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

- - - SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 – DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8230 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

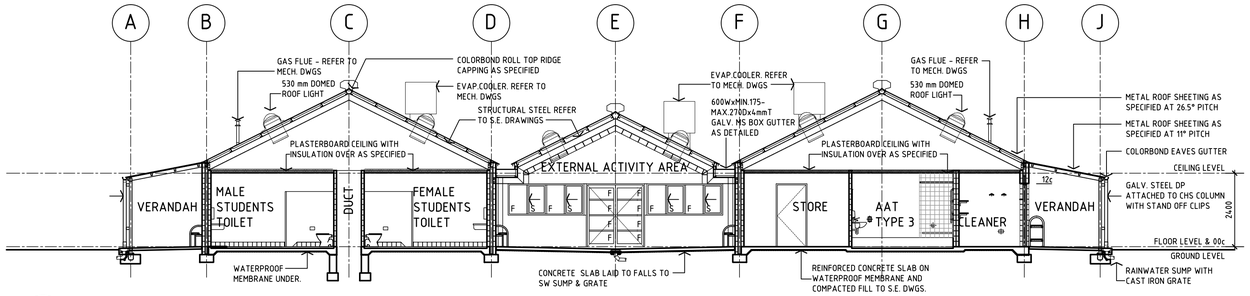
RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

TEACHING BLOCK 4
ELEVATIONS

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A7.31	REV. A
DTF PROJ No. -	DTF FILE No. -		

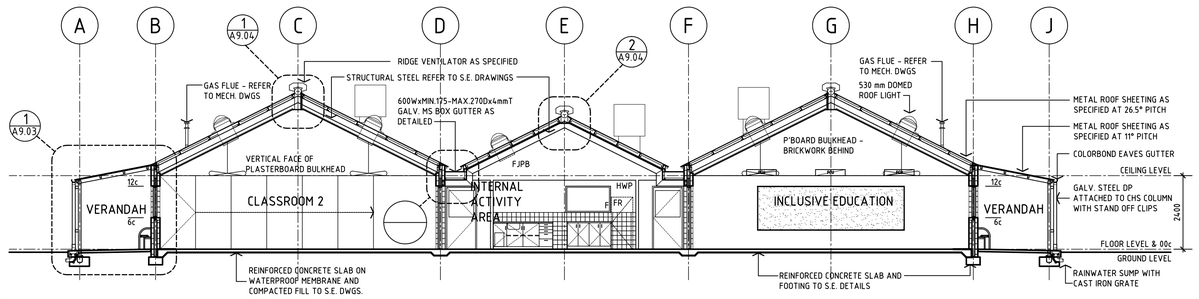
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO: 13-029



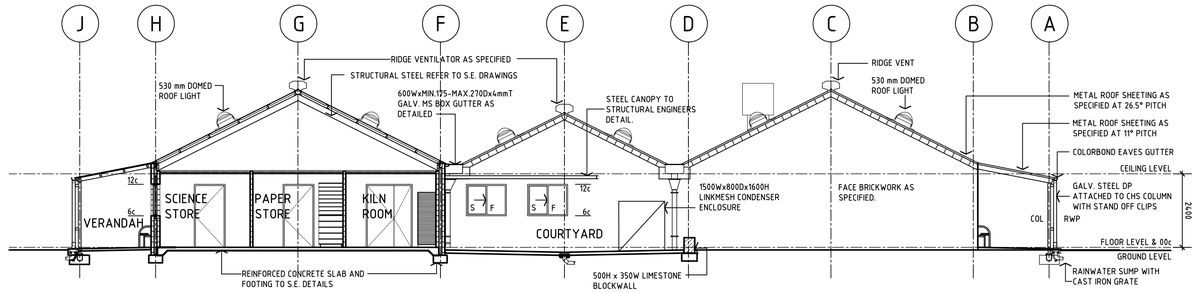
- / A7.01 **SECTION AA**

SCALE 1:100



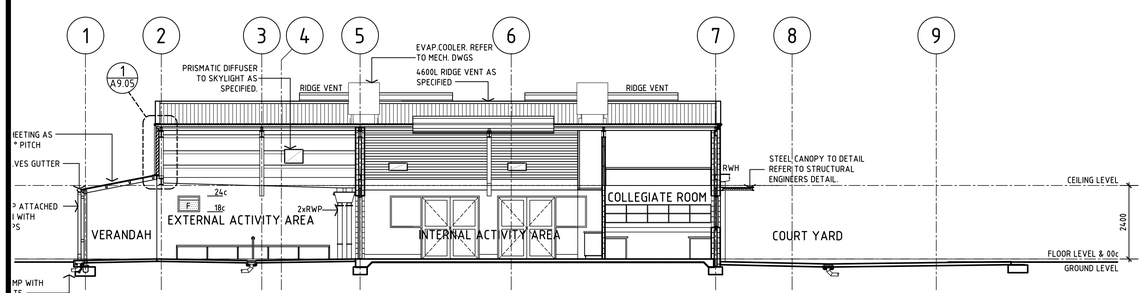
- / A7.01 **SECTION BB**

SCALE 1:100



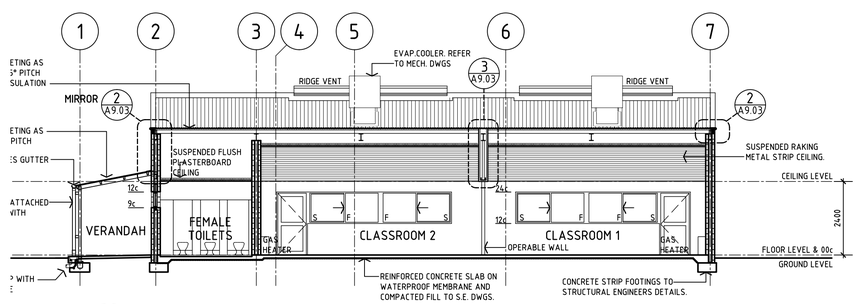
- / A7.01 **SECTION CC**

SCALE 1:100



- / A7.01 **SECTION DD**

SCALE 1:100



- / A7.01 **SECTION EE**

SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1 / 26 — DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE — OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY

NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8200 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

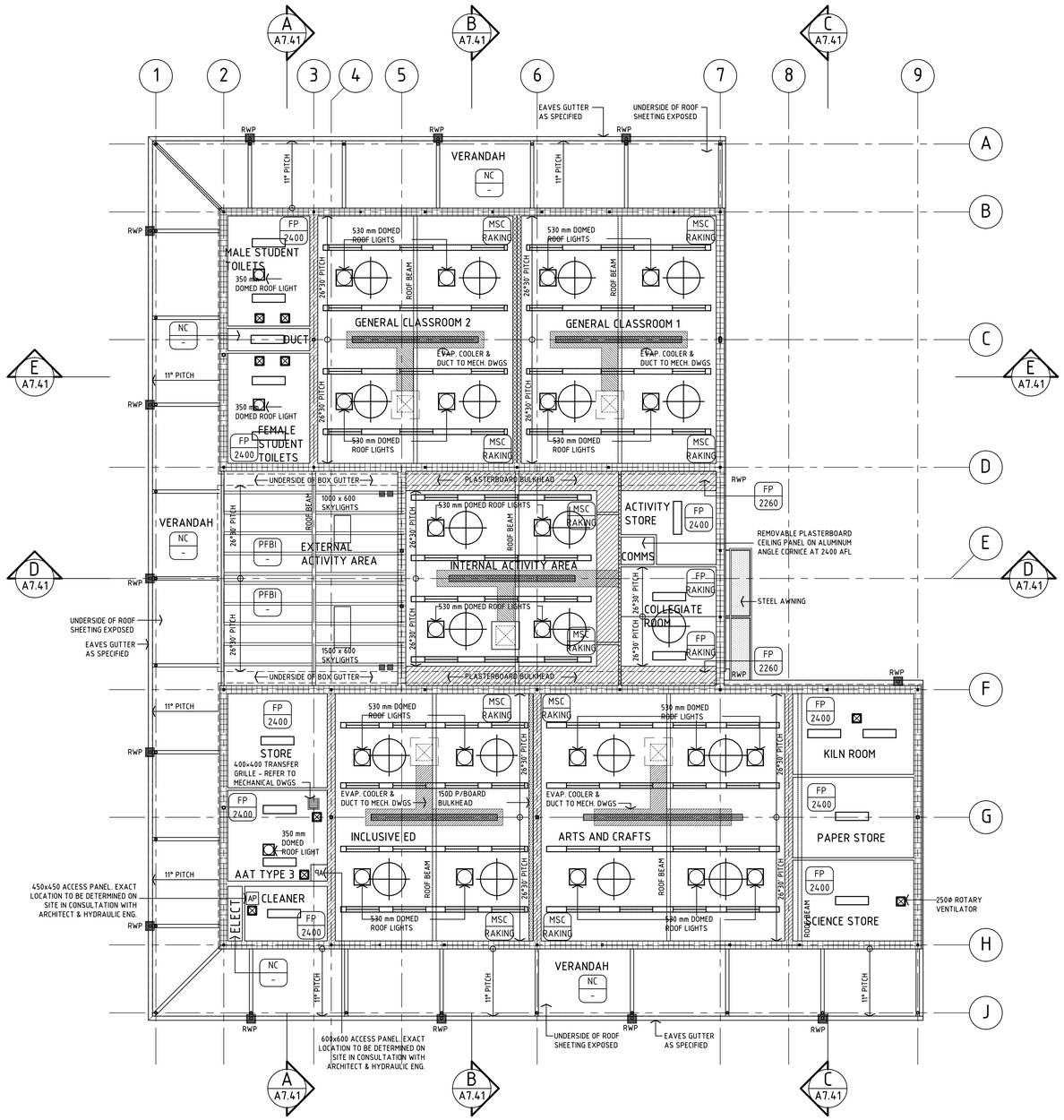
TEACHING BLOCK 4
SECTIONS

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A7.41	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



CEILING PLAN
SCALE 1:100

CEILING LEGEND

GENERAL:

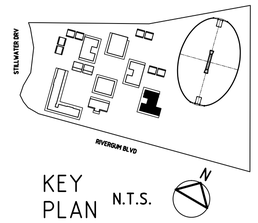
- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP – — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC – — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC – — NO CEILING
- PFBI – — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED



KEY PLAN N.T.S.

NORTH

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

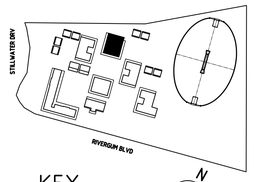
TEACHING BLOCK 4
CEILING PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A7.61	REV. A
DTF PROJ No. -	DTF FILE No. -		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

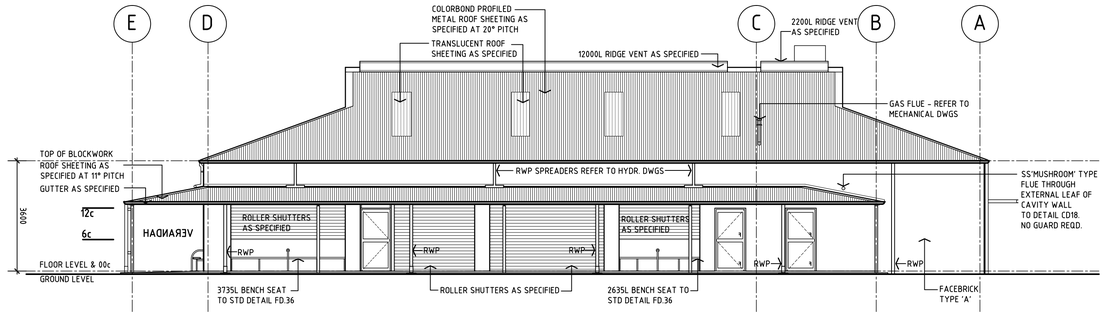
COVERED ASSEMBLY BLOCK
FLOOR PLAN

DRAWN SY	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A8.21 / REV. A
DTF PROJ No. -	DTF FILE No. -	

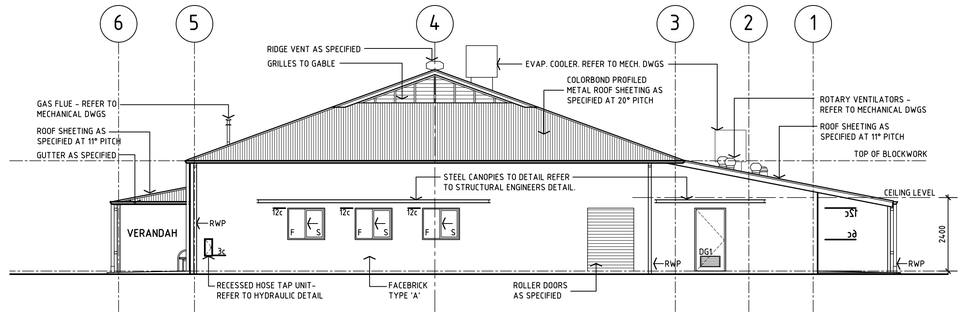
THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

BA JOB NO: 13-029

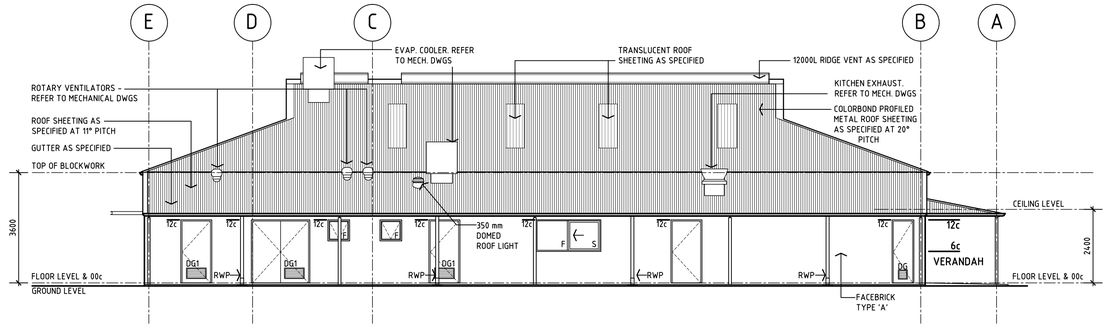
NORTH



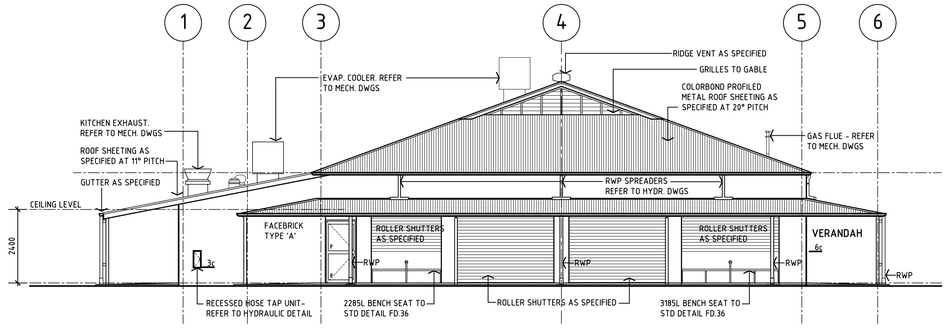
1 – EAST ELEVATION
SCALE 1:100



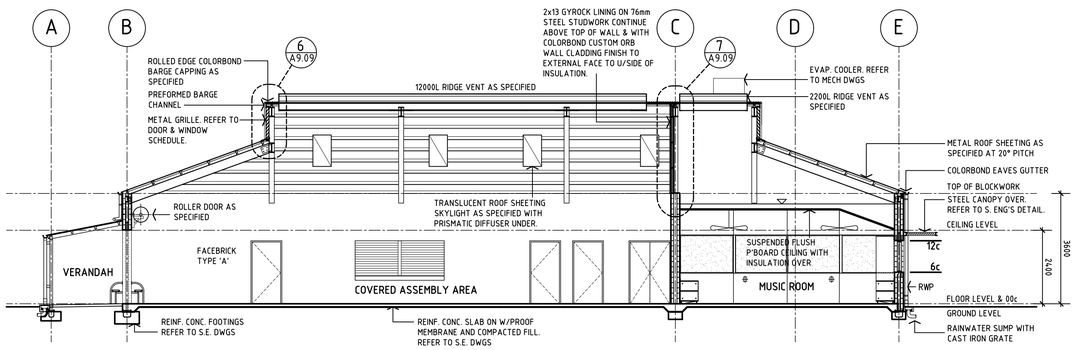
2 – SOUTH ELEVATION
SCALE 1:100



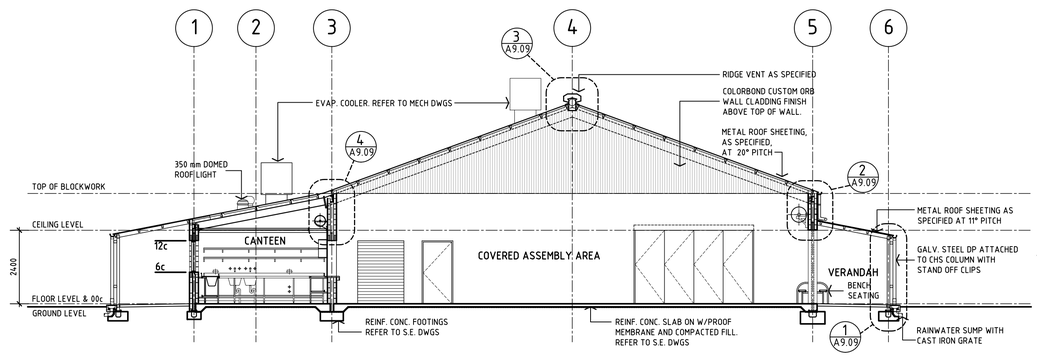
3 – WEST ELEVATION
SCALE 1:100



4 – SOUTH ELEVATION
SCALE 1:100



– SECTION A-A
A8.21
SCALE 1:100



– SECTION B-B
A8.21
SCALE 1:100

REV.	DESCRIPTION	DATE	APPD
x	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

SPECIAL EXTERNAL WALL CONSTRUCTION TO SATISFY SECTION J (R2.0)

D1/26 – DOOR, WINDOW, DOOR/WINDOW OR GRILLE TYPE / OPENING NUMBER

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Check all dimensions on site before commencing. Work to figured dimensions, report any discrepancies to the Architect for decision before proceeding to work. This drawing is copyright and is not to be retained, copied or used without authority from the Architect

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8220 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of Western Australia
Department of Finance
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

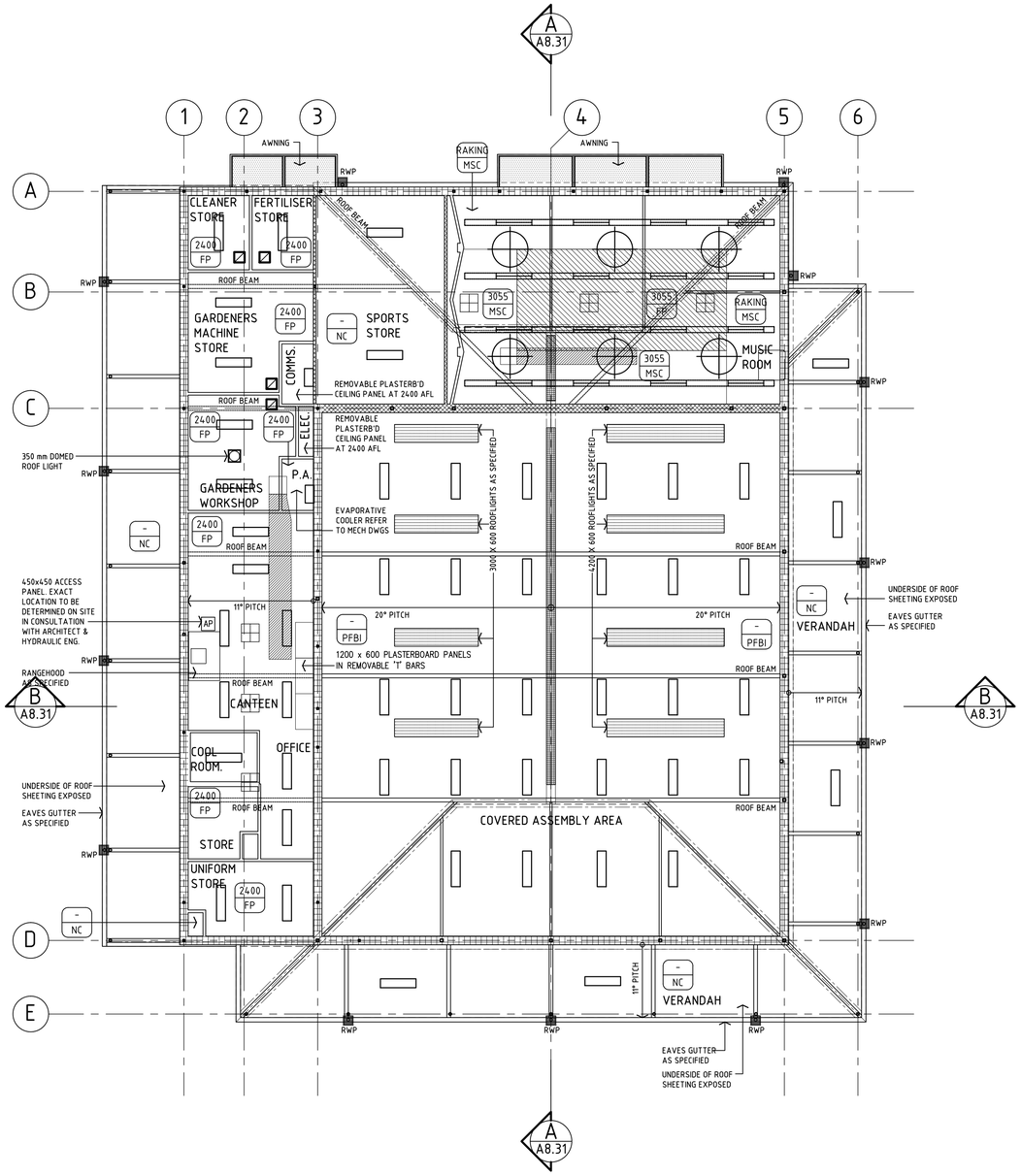
COVERED ASSEMBLY BLOCK ELEVATIONS

DRAWN SY	DESIGNED NB	REDUCTION 0 25	
CHECKED AP	PRINCIPAL		
APPROVED NB			
SCALE 1:100	DATE MAY 2014	DRAWING No. A8.31	REV. A
DTF PROJ No. –	DTF FILE No. –		

THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

BA JOB NO. 13-029

REV.	DESCRIPTION	DATE	APPD
X	ISSUED TO BMW/DOE - SD REPORT	13.05.14	NB
A	DRAFT DD - COORDINATION ISSUE	04.06.14	NB



- CEILING PLAN
- SCALE 1:100

CEILING LEGEND

GENERAL:

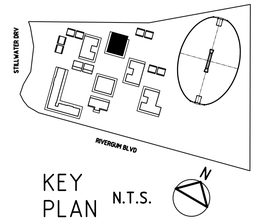
- X / XX — TYPE OF CEILING; HEIGHT OF CEILING ABOVE MAIN FLOOR LEVEL (NOT PAVING LEVEL)
- FP / - — FLUSH JOINTED PLASTERBOARD AS SPECIFIED ON CONCEALED SUSPENSION SYSTEM
- MSC / - — METAL STRIP CEILING AS SPECIFIED ON CONCEALED FIXING SYSTEM
- NC / - — NO CEILING
- PFBI / - — PERFORATED WHITE FOIL BACKED INSULATION TO U/SIDE OF METAL ROOF WITH GALV. LINK MESH AS SPECIFIED
- AP — ACCESS PANEL
- DOMED ROOF LIGHTS TO VARIOUS SPECIFIED SIZES
- WALLS BUILT UP TO ROOF OR STRUCTURAL STEEL FRAMING
- WALLS BUILT UP TO UNDERSIDE OF ROOF OR STRUCTURAL STEEL FRAMING AND SEALED WITH FIRE RATED INSULATION
- WALLS BUILT UP TO SPECIFIED HEIGHT WITH PLASTERBOARD ABOVE TO UNDERSIDE OF ROOF OR STRUCTURAL FRAMING
- ALL OTHER ROOMS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE
- BRICK WALLS BUILT UP TO 100 ABOVE FLAT OR RAKING CEILING LINE WITH ACOUSTIC STUD WALL OR BRICKWORK OVER BUILT TO UNDERSIDE OF ROOF AND SEALED WITH FIRE RATED INSULATION

ELECTRICAL:

- SUSPENDED LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT LIGHT FITTING
- WALL MOUNTED LUMINAIRE
- RECESSED DOWNLIGHT LUMINAIRE
- CEILING FAN

MECHANICAL:

- SUPPLY AIR GRILLE
- EXHAUST AIR GRILLE
- FCU — FAN COIL UNIT
- ROOF VENT
- DOMED ROOF LIGHT VUSION DIFUSER AS SPECIFIED



KEY PLAN N.T.S.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES
2. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS
3. LARGE SCALE DRAWINGS SHALL TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
4. THE CONTRACTOR SHALL CARRY OUT THE WORK IN ACCORDANCE WITH THE SPECIFICATION, THE B.C.A. AND LOCAL AUTHORITY REQUIREMENTS
5. ALL MATERIALS SHALL BE NEW & CONFORM TO WHAT IS SHOWN ON THE DRAWINGS AND IN THE SPECIFICATION
6. THE CONTRACTOR SHALL CHECK & VERIFY ALL DIMENSIONS ON THE SITE, PRIOR TO THE COMMENCEMENT OF ANY BUILDING WORK
7. THE CONTRACTOR SHALL VISIT THE SITE & NOTE ALL VISIBLE SITE CONDITIONS & ACCESS REQUIREMENTS

LEGEND

BCJ	BRICK CONTROL JOINTS
BWU	BOILING WATER UNIT
CJ	CONTROL JOINT IN SLAB
COL	STEEL COLUMN - REFER TO S.E. DWGS
CS	CLEANERS SINK
CT	CERAMIC TILES
DG	DOOR GRILLE
DS	DIMINISHING STRIP
DW	DISH WASHER
FC	FILING CABINET
FE	FIRE EXTINGUISHER
FWG	FLOOR WASTE GULLY
GFCR	GLASS FACE CEMENT RENDER
GJ	GROOVE JOINT IN SLAB
HB	HAND BASIN
HC	HOSE COCK (IN CONC. BOX)
HTR	HEATER
HWU	HOT WATER UNIT
HWP	HARDWALL PLASTER
LP	LAMINATED PLASTIC
MJ	MASTIC JOINT IN SLAB
MT	MOSAIC TILES
MWO	MICROWAVE OVEN
N.I.C.	NOT IN CONTRACT
PUB	PIN-UP BOARD
PTD	PAPER TOWEL DISPENSER
REF	REFRIGERATOR
RWP	RAINWATER PIPE
S.E.	STRUCTURAL ENGINEER
SM	SEALED MONOLITHIC CONCRETE
SR	STUDDED RUBBER
SS	STAINLESS STEEL
ST	STOVE
TPH	TOILET PAPER HOLDER
V	VEE GROOVE CONTROL JOINT
VS	VINYL SKIRTING
WB	WHITE BOARD
WC	WATER CLOSET
WS	WEATHER STRIP
WSV(1)	WELDED SHEET VINYL-R9 ACCOLADE PLUS
WSV(2)	WELDED SHEET VINYL-R10 ACCOLADE SAFEPLUS

TPG RECEIVED 18 JUNE 2014

PRELIMINARY
NOT FOR CONSTRUCTION

Bateman Architects
35 Northwood Street, West Leederville, W.A. 6007
Tel: (08) 9382 8230 Fax: (08) 9382 8228
www.batemanarchitects.biz

Government of **Western Australia**
Department of **Finance**
Building Management and Works

ARCHITECTURAL

RIVERGUM PRIMARY SCHOOL
STILLWATER PDE/RIVERGUM BLVD, BALDIVIS.

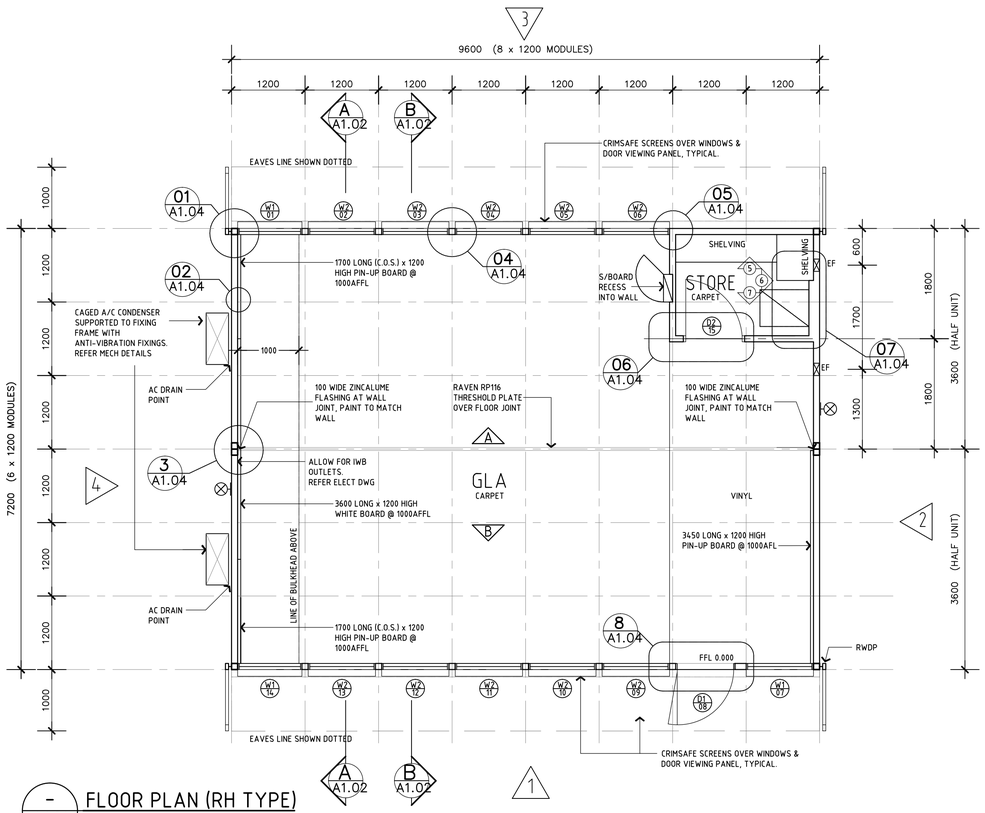
COVERED ASSEMBLY BLOCK
CEILING PLAN

DRAWN AT	DESIGNED NB	REDUCTION 0 25
CHECKED AP	PRINCIPAL	
APPROVED NB		
SCALE 1:100	DATE MAY 2014	DRAWING No. A8.61 / REV. A
DTF PROJ No. -	DTF FILE No. -	

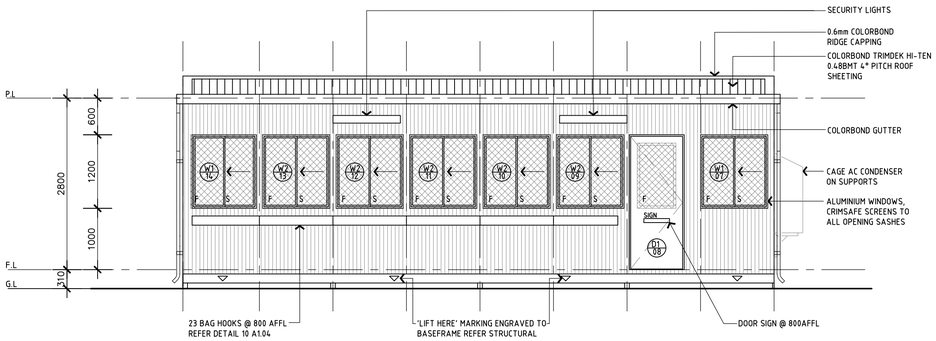
NORTH

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

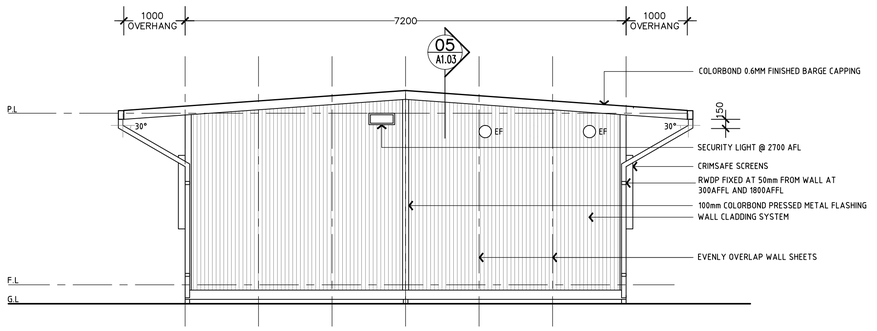
BA JOB NO: 13-029



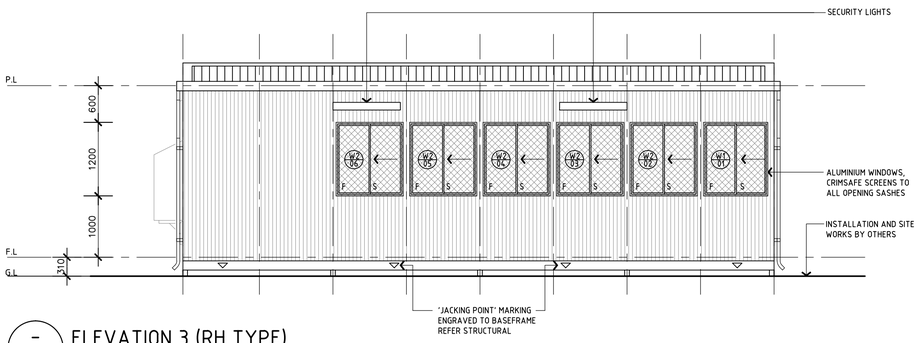
– A1.01 FLOOR PLAN (RH TYPE)
1:50



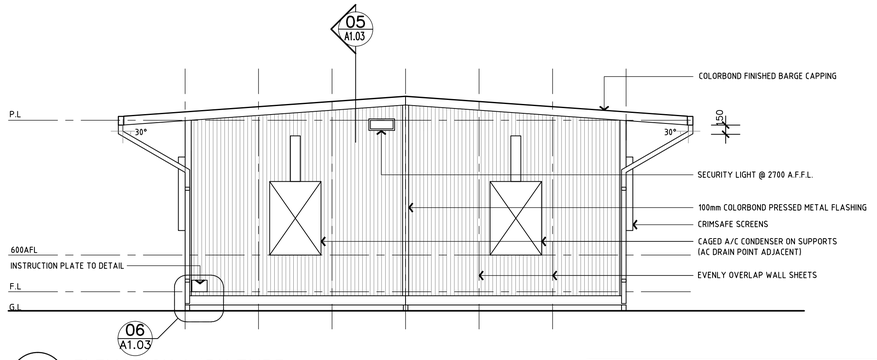
– A1.01 ELEVATION 1 (RH TYPE)
1:50 / SIDE A



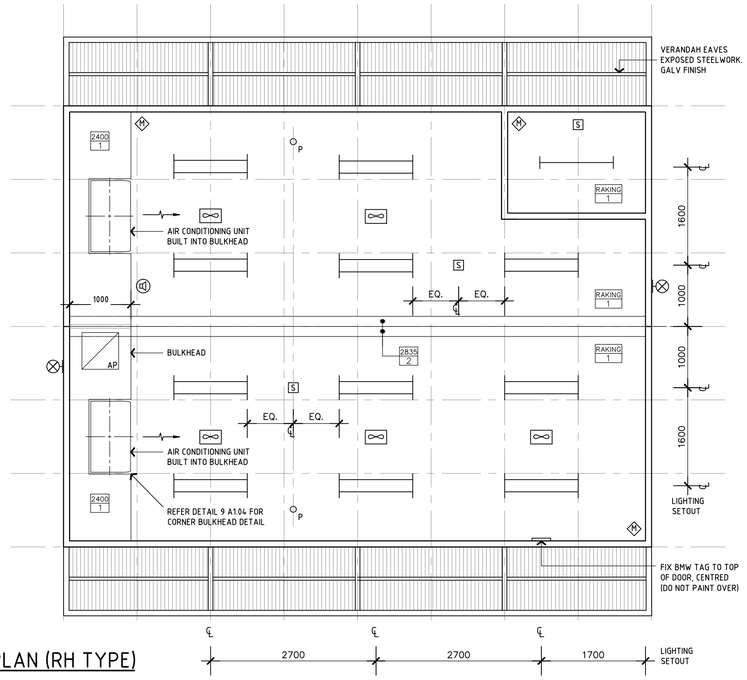
– A1.01 ELEVATION 2 (RH TYPE)
1:50



– A1.01 ELEVATION 3 (RH TYPE)
1:50 / SIDE B



– A1.01 ELEVATION 4 (RH TYPE)
1:50



– A1.01 CEILING PLAN (RH TYPE)
1:50

TPG RECEIVED 18 JUNE 2014

CONTRACT QUANTITY = 15 OFF IN TOTAL	
STANDARD GLA – RIGHT HANDED	8
STANDARD GLA – MIRRORED	7

NOTES

1. LOCATION OF TRANSPORTABLE ONSITE & SITE WORKS IS NOT IN SCOPE OF WORKS

LEGEND

P.L	PLATE LEVEL
F.L	FLOOR LEVEL
G.L	GROUND LEVEL

AP	ACCESS PANEL	PM	ADJUSTABLE 300Φ PARABOLIC MIRROR FIXED AT HIGH LEVEL
ACC	AIR CON CONTROL		
AV	AV WALL PLATE	PTD	PAPER TOWEL DISPENSER
DATA	DATA WALL PLATE	RWDP	HDG PAINT FINISH STEEL DOWNPIPE FIXED TO STRUCTURE
EFS	EXHAUST FAN SWITCH		
EFSO	EXHAUST FAN SWITCH OVERRIDE	S	SLIDING WINDOW SASH
EF	EXHAUST FAN	SD	SOAP DISPENSER
F	FIXED WINDOW SASH	SS	STAINLESS STEEL
FR	FRIDGE (NIC)	TEL	TELEPHONE WALL PLATE
FS	FAN SWITCH	TH	THERMOSTAT
FWG	FLOOR WASTE GULLY	TRH	TOILET ROLL HOLDER
GPO	SINGLE GPO WALL PLATE	U/S	UNDERSIDE
DGPO	DOUBLE GPO WALL PLATE	USB	USB WALL PLATE
LS	LIGHT SWITCH	WB	WHITEBOARD
NIC	NOT IN CONTRACT	VC	VOLUME CONTROL
PB	PINBOARD		

CEILING LEGEND

1	10mm PLASTERBOARD WITH 'H' MOULD AT JOINTS WITH 75mm R1.5MIN GLASSWOOL INSULATION OVER		SURFACE MOUNTED EXTERNAL SECURITY LUMINAIRE
			SPEAKER
2	UNDERSIDE OF BEAM	T	THERMOSTAT
AP	CEILING ACCESS PANEL LOCKABLE 600x600mm WITH DROP CHAIN	S	PROVIDE CONDUIT AND DRAWWIRE FOR SMOKE DETECTOR, AND ENGRAVED BLANK PLATE OVER FIT OFF 'SMOKE DETECTOR'
	WHITE CEILING FANS WITH CLEAR POLYCARBONATE BLADES		TWI N SURFACE MOUNTED LUMINAIRE WITH PRISMATIC DIFFUSER
M	MOTION SENSOR		SINGLE SURFACE MOUNTED LUMINAIRE WITH PRISMATIC DIFFUSER
P	DAYLIGHT SENSOR		

Rev	Date	Issued To
1	19.11.12	ISSUED FOR TENDER

Rev	Date	Description
1	19.11.12	TENDER ISSUE

TENDER

PERTH
Level 2 | 9 Havelock Street | West Perth | WA 6005
t | 08 9485 2122
f | 08 9485 2037
e | admin@patersongroup.com.au
w| www.patersongroup.com.au

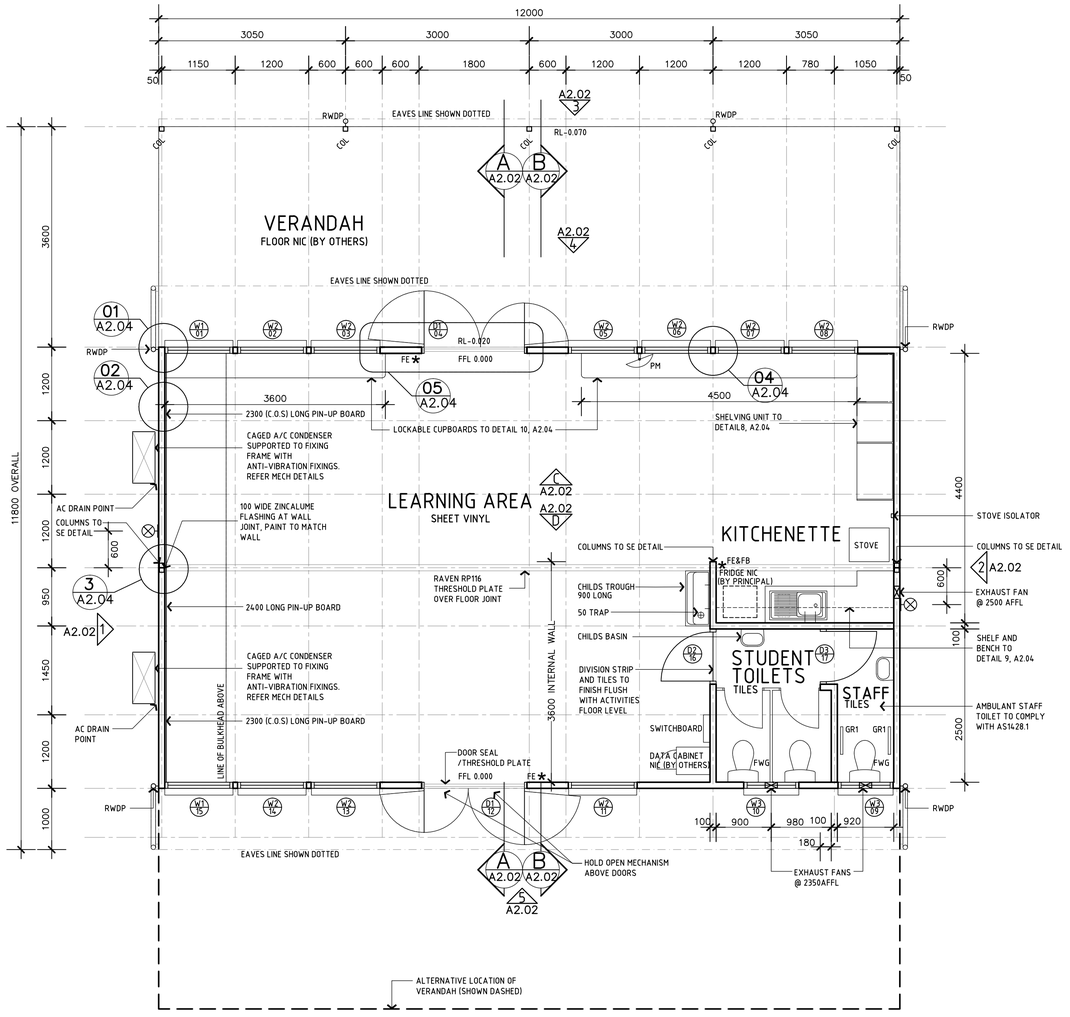
CARNAVON
33a Robinson Street | Carnarvon | WA 6701
t | 08 9941 4607
e | admin@patersongroup.com.au

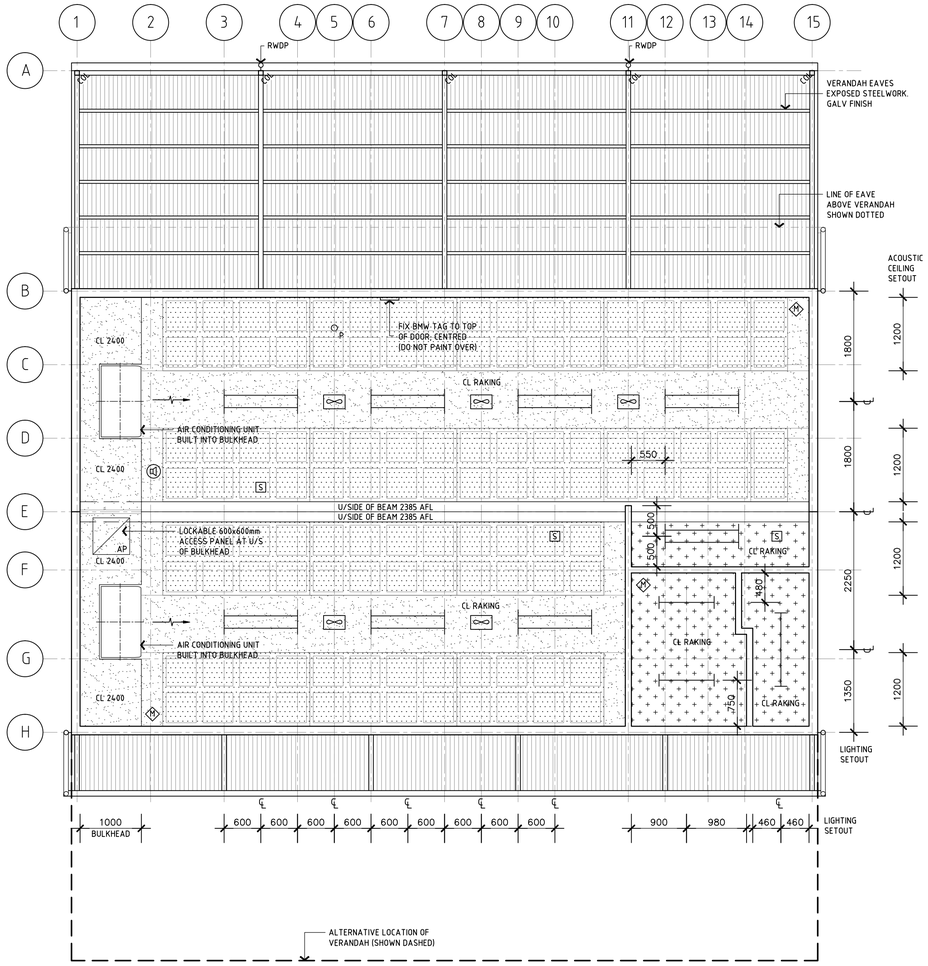
Government of **Western Australia**
Department of **Finance**
Building Management and Works

TRANSPORTABLE SCHOOL BUILDINGS
STANDARD GLA CLASSROOM
FLOOR & CEILING PLAN, ELEVATIONS

DRAWN PGA		DESIGNED PGA	REDUCTION 0 25
CHECKED PGA		PRINCIPAL GP	
APPROVED PGA			
SCALE 1:50		DATE NOV 2012	DRAWING No. A1.01 1
BMW PROJ No. 20112784		BMW FILE No. BMW 0723212	

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY





NOTES

1. THE VERANDAH IS TO BE FABRICATED TO ALLOW FOR ATTACHMENT TO TRANSPORTABLE IN EACH ALTERNATIVE LOCATION AS SHOWN ON THE DRAWINGS
2. LOCATION OF TRANSPORTABLE ONSITE & SITE WORKS IS NOT IN SCOPE OF WORKS
3. REFER TO DOOR & HARDWARE SCHEDULE FOR EXTENT OF THRESHOLD PLATES & HARDWARE
4. REFER TO SPECIFICATION, SCHEDULE & TABLES, FIRE EXTINGUISHER SCHEDULE FOR LOCATION & EXTENT OF FIRE EQUIPMENT.

LEGEND

P.L	PLATE LEVEL	PM	ADJUSTABLE 300Φ PARABOLIC MIRROR FIXED AT HIGH LEVEL
F.L	FLOOR LEVEL	PTD	PAPER TOWEL DISPENSER
G.L	GROUND LEVEL	RWDP	HDG PAINT FINISH STEEL DOWNPIPE FIXED TO STRUCTURE
AP	ACCESS PANEL	S	SLIDING WINDOW SASH
F	FIXED WINDOW SASH	SD	SOAP DISPENSER
EF	EXHAUST FAN	SS	STAINLESS STEEL
FR	FRIDGE (NIC)	TRH	TOILET ROLL HOLDER
FWG	FLOOR WASTE GULLY	U/S	UNDERSIDE
GR1	GRAB RAIL TYPE 1	WB	WHITEBOARD
NIC	NOT IN CONTRACT	✱FE	FIRE EXTINGUISHER
PB	PINBOARD	✱FB	FIRE BLANKET

CEILING LEGEND

- MOISTURE RESISTANT P/BOARD CEILING, 'H' MOULD JOINTS WITH INSULATION OVER.
- PLASTERBOARD CEILING, 'H' MOULD JOINTS WITH INSULATION OVER.
- ACOUSTIC PERFORATED PLASTERBOARD CEILING, 'H' MOULD JOINTS PANELS WITH INSULATION OVER.
- TWIN SURFACE MOUNTED LUMINAIRE WITH PRISMATIC DIFFUSER
- SINGLE SURFACE MOUNTED LUMINAIRE WITH PRISMATIC DIFFUSER
- AP — CEILING ACCESS PANEL LOCKABLE 600x600mm WITH DROP CHAIN
- WHITE CEILING FANS WITH CLEAR POLYCARBONATE BLADES
- S — PROVIDE CONDUIT AND DRAWWIRE FOR SMOKE DETECTOR, AND ENGRAVED BLANK PLATE OVER FIT OFF 'SMOKE DETECTOR'
- SURFACE MOUNTED EXTERNAL SECURITY LUMINAIRE
- SPEAKER
- T — THERMOSTAT
- P — DAYLIGHT SENSOR
- MOTION SENSOR

Rev	Date	Issued To
1	19.11.12	ISSUED FOR TENDER

Rev	Date	Description
1	19.11.12	TENDER ISSUE

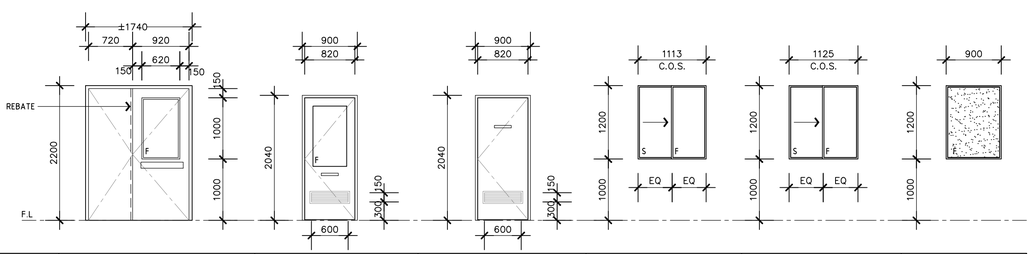
TENDER

PERTH
Level 2 | 9 Havelock Street | West Perth | WA 6005
t | 08 9485 2122
f | 08 9485 2037
e | admin@patersongroup.com.au
w| www.patersongroup.com.au

CARNARVON
33a Robinson Street | Carnarvon | WA 6701
t | 08 9941 4607
e | admin@patersongroup.com.au

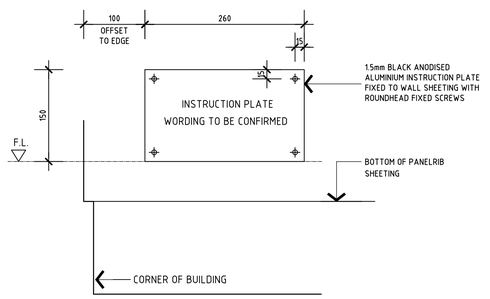
Government of Western Australia
Department of Finance
Building Management and Works

– A2.01 FLOOR PLAN (R.H. TYPE)
1:50



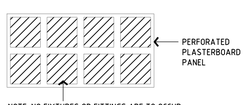
DOOR or WINDOW TYPE:	D1	D2	D3	W1	W2	W3
OPENING NUMBER:	04, 12	16	17	01, 15	02, 03, 05, 06, 07, 08, 11, 13, 14, 15	09, 10
LOCATION:	EXTERNAL	STUDENT TOILET	STAFF TOILET	EXTERNAL	EXTERNAL	EXTERNAL
FRAME:	ALUMINIUM	STEEL 12 ZINCANNEAL	STEEL 12 ZINCANNEAL	ALUMINIUM	ALUMINIUM	ALUMINIUM
WINDOW/DOOR:	40mm SOLID CORE DOOR WITH CRIMSAFE SECURITY GRILLE SCREW FIXED TO DOOR VIEWING PANEL AND WITH TAMPER RESISTANT FIXINGS	40mm SOLID CORE DOOR WITH LAMINATED SAFETY GLASS VIEWING PANEL	40mm SOLID CORE DOOR	CYCLONIC CRIMSAFE SECURITY SCREENS	CYCLONIC CRIMSAFE SECURITY SCREENS	CYCLONIC CRIMSAFE SECURITY SCREENS OBSCURE GLAZING
REMARKS:	HEAVY DUTY DOOR HARDWARE 'HOLD OPEN' DOOR CLOSER MECHANISM SET AT 110° PAINT FINISH TO ALL SIDES OF DOOR 1 OFF DOOR SIGN - LEAVE BLANK TO BE ENGRAVED BY OTHERS REFER TO SPECIFICATIONS FOR GLAZING AND CRIMSAFE SCREEN OVER FULL WEATHER SEAL TO ALL SIDES	HEAVY DUTY DOOR HARDWARE 'HOLD OPEN' DOOR CLOSER MECHANISM SET AT 90° PAINT FINISH TO ALL SIDES OF DOOR 1 OFF TOILET DOOR SIGN REFER TO SPECIFICATIONS FOR GLAZING VANDAL PPOOF STEEL POWDERCOATED 600x150 DOOR GRILLE REFER MECH	HEAVY DUTY DOOR HARDWARE LIFT OPEN HINGES FOR EMERGENCY ACCESS 'HOLD OPEN' DOOR CLOSER MECHANISM SET AT 90° PAINT FINISH TO ALL SIDES OF DOOR 1 OFF TOILET DOOR SIGN VANDAL PPOOF STEEL POWDERCOATED 600x150 DOOR GRILLE REFER MECH	REFER TO SPECIFICATIONS FOR GLAZING, CRIMSAFE SCREEN OVER AND WINDOW RATINGS	REFER TO SPECIFICATIONS FOR GLAZING, CRIMSAFE SCREEN OVER AND WINDOW RATINGS	REFER TO SPECIFICATIONS FOR GLAZING, CRIMSAFE SCREEN OVER AND WINDOW RATINGS

– A2.01 CEILING PLAN (R.H. TYPE)
1:50



01 A2.02 DETAIL ELEVATION
1:5 / INSTRUCTION PLATE

INSTRUCTIONS TO BE AS DETAILED ABOVE AND ENGRAVED INTO PLATE IN ISONORM TYPE



NOTE: NO FIXTURES OR FITTINGS ARE TO OCCUR OVER PERFORATED SECTIONS OF CEILING (AS SHOWN HATCHED)

– A2.01 ACOUSTIC PANELS DETAIL
1:50

CONTRACT QUANTITY = 11 OFF IN TOTAL	
PRE–PRIMARY – RIGHT HANDED	6
PRE–PRIMARY – MIRRORED	5

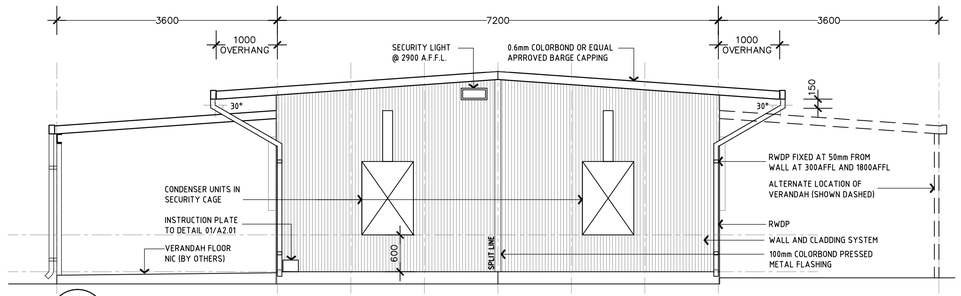
TRANSPORTABLE SCHOOL BUILDINGS
PRE–PRIMARY CLASSROOM FLOOR & CEILING PLAN, WIN & DOOR SCHEDULE

DRAWN: PGA		DESIGNED: PGA	REDUCTION: 0 25
CHECKED: PGA		PRINCIPAL: GP	
APPROVED: PGA			
SCALE: 1:50		DATE: NOV 2012	DRAWING No.: A2.01 1
BMW PROJ No.: 20112784		BMW FILE No.: BMW 0723212	

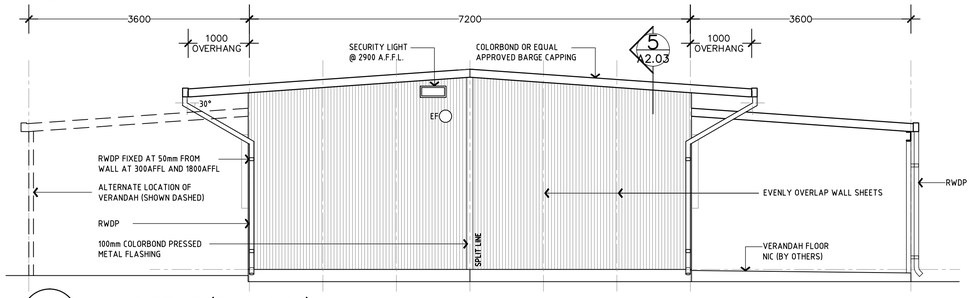
THIS IS A CADD DRAWING DO NOT AMEND MANUALLY

Model: 20/11/2012 8:44:46 AM, Paterson Group Architects

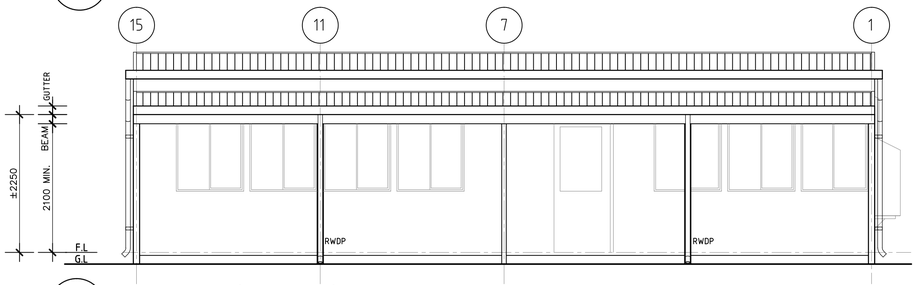
TPG RECEIVED 18 JUNE 2014



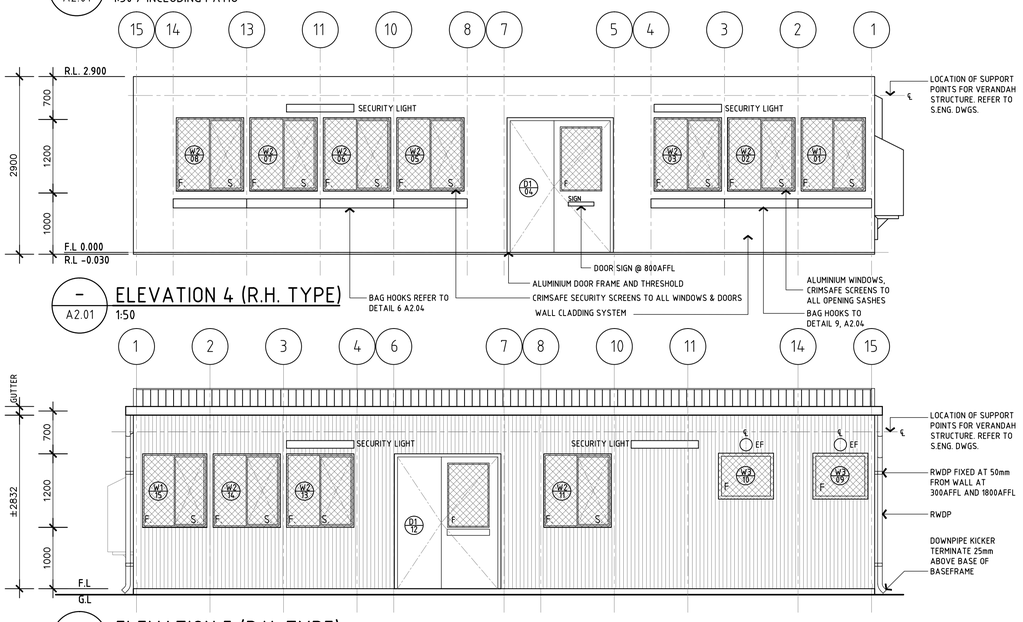
– A2.01 **ELEVATION 1 (R.H. TYPE)**
1:50



– A2.01 **ELEVATION 2 (R.H. TYPE)**
1:50



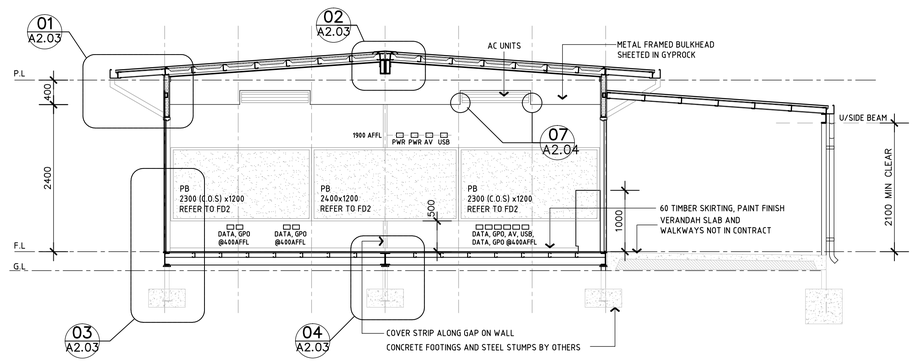
– A2.01 **ELEVATION 3 (R.H. TYPE)**
1:50 / INCLUDING PATIO



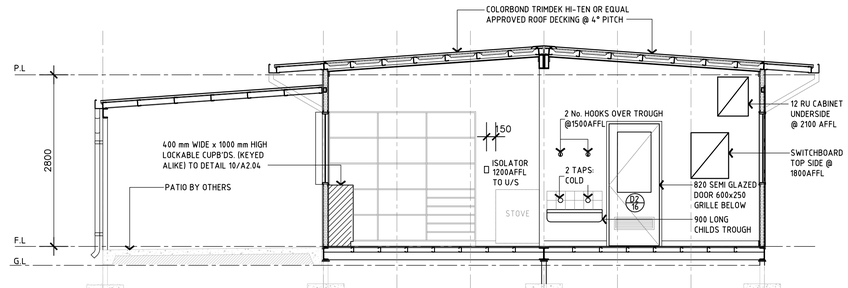
– A2.01 **ELEVATION 4 (R.H. TYPE)**
1:50

– A2.01 **ELEVATION 5 (R.H. TYPE)**
1:50

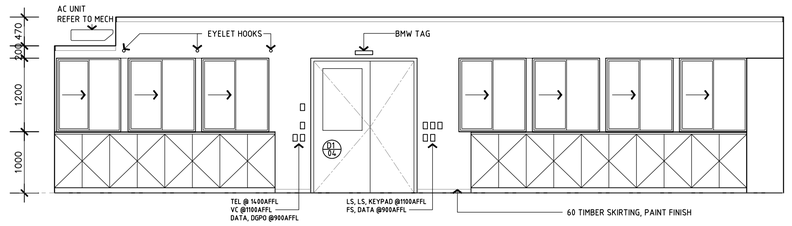
TPG RECEIVED 18 JUNE 2014



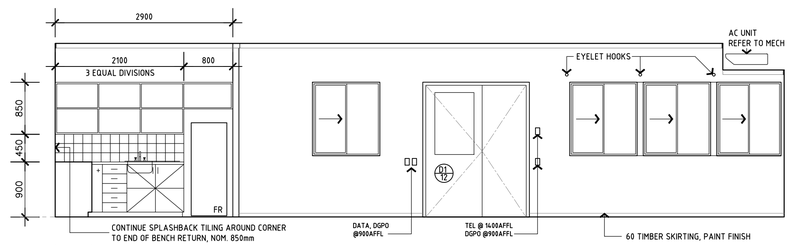
– A2.01 **SECTION A-A**
1:50



– A2.01 **SECTION B-B**
1:50



– A2.01 **INTERNAL ELEVATION C**
1:50



– A2.01 **INTERNAL ELEVATION D**
1:50

NOTES

1. THE VERANDAH IS TO BE FABRICATED TO ALLOW FOR ATTACHMENT TO TRANSPORTABLE IN EACH ALTERNATIVE LOCATION AS SHOWN ON THE DRAWINGS
2. LOCATION OF TRANSPORTABLE ONSITE & SITE WORKS IS NOT IN SCOPE OF WORKS

LEGEND

P.L	PLATE LEVEL	PB	PINBOARD
F.L	FLOOR LEVEL	PM	ADJUSTABLE 300ø PARABOLIC MIRROR FIXED AT HIGH LEVEL
G.L	GROUND LEVEL	PTD	PAPER TOWEL DISPENSER
AP	ACCESS PANEL	RWDP	HDG PAINT FINISH STEEL DOWNPIPE FIXED TO STRUCTURE
	FIXED WINDOW SASH	S	SLIDING WINDOW SASH
EF	EXHAUST FAN	SD	SOAP DISPENSER
FR	FRIDGE (NIC)	SS	STAINLESS STEEL
FWG	FLOOR WASTE GULLY	TRH	TOILET ROLL HOLDER
GR1	GRAB RAIL TYPE 1	U/S	UNDERSIDE
NIC	NOT IN CONTRACT	WB	WHITEBOARD

Rev	Date	Issued To
1	19.11.12	ISSUED FOR TENDER

Rev	Date	Description
1	19.11.12	TENDER ISSUE

TENDER

PERTH
Level 2 | 9 Havelock Street | West Perth | WA 6005
t | 08 9485 2122
f | 08 9485 2037
e | admin@patersongroup.com.au
w| www.patersongroup.com.au

CARNAVON
33a Robinson Street | Carnarvon | WA 6701
t | 08 9941 4607
e | admin@patersongroup.com.au

Government of **Western Australia**
Department of **Finance**
Building Management and Works

TRANSPORTABLE SCHOOL BUILDINGS
PRE-PRIMARY CLASSROOM
SECTIONS & ELEVATIONS

DRAWN PGA		DESIGNED PGA	REDUCTION 0 25
CHECKED PGA		PRINCIPAL GP	
APPROVED PGA			
SCALE 1:50		DATE NOV 2012	DRAWING No. A2.02 1
BMW PROJ No. 20112784		BMW FILE No. BMW 0723212	

THIS IS A CADD DRAWING
DO NOT AMEND MANUALLY

Bateman Architects

Rivergum Primary School

Traffic Report

July 2014

Table of contents

Table index

Figure index

Appendices

1. Introduction

1.1 Background

GHD have been commissioned by Bateman Architects on behalf of Building Management and Works (BMW) to provide the traffic engineering input to the proposed Rivergum Primary School in Baldivis. An earlier report was prepared for JCY Architects which provided traffic input for the Baldivis Senior High School to assist the project team with the traffic planning requirements for the site masterplan. This report should be read in conjunction with the earlier report.

The City of Rockingham has requested further transport assessment for the proposed Primary School which is will be located adjacent to the High School site. Access/egress will be gained from Rivergums Boulevard and Stillwater Drive.

The purpose of the report is to satisfy the council in relation to the design measure undertaken in response to the original Traffic Management Report, and the feedback they have provided so far.

The site location is shown in Figure 1.

Figure 1 Location Map

1.2 Scope and limitations

This report: has been prepared by GHD for Bateman Architects and *may only be used and relied on by Bateman Architects for the purpose agreed between GHD and the Bateman Architects as set out in section 1.1 of this report.*

GHD otherwise disclaims responsibility to any person other than Bateman Architects arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Bateman Architects and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Existing Road Network

The existing road network is shown on Figure 1 and is outlined below.

2.1 Rivergums Boulevard

Rivergums Boulevard provides the main access into the Precinct and is identified as an Access Road in the Main Roads Functional Road Hierarchy; it is also a bus route. The road intersects with Baldivis Road.

No traffic data is available from the City of Rockingham however it is anticipated to carry around 6,940vpd (a) east of Baldivis Road and 3,450vpd (a) at its eastern end (west of Stillwater Dr) on full residential development.

(a) Cardno Report 9 October 2009

2.2 Baldivis Road

Baldivis Road is classified as a District Distributor A in the Main Roads Functional Road Hierarchy and is expected to carry in excess of 8,000vpd. Traffic data obtained from Main Roads indicates 12,176vpd (October 2006) use Baldivis Road. Since the opening of the New-Perth Bunbury Highway it is likely that traffic volumes have reduced. No survey data is available from Main Roads.

2.3 Stillwater Drive

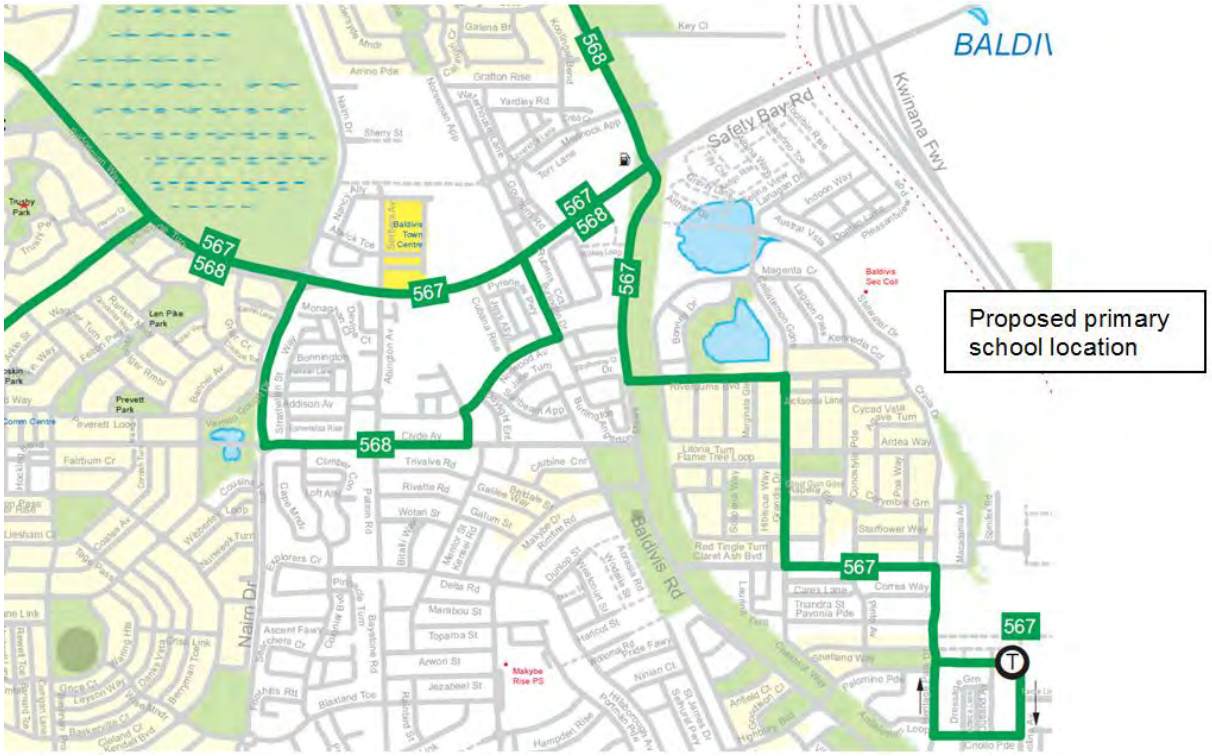
Stillwater Drive is classified as an Access Street in the Main Roads Functional Road Hierarchy. No existing traffic volumes are available. The road is a single carriageway with embayed parking on each side. The road provides access to the Senior High School.

2.4 Public Transport

The 567 bus service currently accesses the development via Rivergums Boulevard and has a terminus in Ardea Way. The service loops around Conostylis Pde and Ficifolia Br. The 567 links to the Warnboro Train Station off Safety Bay Road.

A route map is shown in Figure 2.

Figure 2 Bus Service 567



Contact was made with PTA in July 2014 who advised as follows regarding current and possible future services.

The current network in Baldivis includes:

- *Route 564 (cannot deviate due to difficulties turning right unassisted on Safety Bay Rd)*
- *Route 567 (which deviates for Baldivis Secondary in both directions)*
- *Route 568 (which deviates for Baldivis Secondary in both directions)*

Hopefully from mid 2015 (subject to the road network being completed and PTA still having the budget) PTA will add Route 565 north south along Nairn Dr which will also likely deviate to Baldivis Secondary in both directions.

After the introduction of the fourth route into Baldivis, future planning suggests Route 566 will be next in line and this will see a realignment of existing Route 568 onto its longer term alignment (it will no longer deviate via Clyde Av). This route is also likely to deviate to Baldivis Secondary in both directions. The Sixth bus route, Route 569 is some time away and will be the second route north of Safety Bay Rd. PTA anticipate if / when it is introduced it will also deviate via Baldivis Secondary.

Deviations are timed to meet the needs of the Secondary College and it is worth noting these may not work for the co-located Primary School. If the Primary School uses common times, it should work, however if they differ, PTA will only specifically modify the network for the High School given that most Primary School kids do not use Transperth buses to travel to/from school (given they typically require a higher level of care).

2.5 Pedestrians and Cyclists

The current Bicycle Network from the DoT web site is shown in Figure 3. There are no designated routes through the existing precinct. A Principal Shared Path (PSP) is located to the east of the site adjacent to the Perth Bunbury Highway.

Figure 3 Existing Cycle Network

Footpaths are currently provided in proximity to the schools as follows:

- on each side of Rivergums Blvd west of Stillwater Drive.
- on each side of Stillwater Drive north.
- on the east side of Stillwater Drive south.

3. Proposed Development

3.1 Extract from Local Structure Plan in Vicinity of School

3.2 Forecast Traffic Generation

The proposed Primary School will be located adjacent to the Senior High School. It is understood that the Primary School will have 430 students and the High School 1200 students.

Key traffic volumes identified in the earlier Cardno report for the proposed Structure Plan are as follows and consider both the High School and Primary School trip generation. Also refer to Figure 4.

Table 1 Forecast Traffic Volumes

Location	Vpd
North-South Road adjacent to High School Site	1,430vpd
North-South Road adjacent to Primary School Site	2,290vpd
Rivergums Boulevard east of Grandis Drive	3,450vpd
Rivergums Boulevard east of Litoria Turn	6,940vpd

3.2.1 Peak Hour Trip Generation

The WAPC Transport Guidelines for Developments indicates the following trip rates for both Primary School and High Schools:

- 0.5 trips per child to school and 0.5 trips per child from school in each of the AM and PM peak hours.

The estimated peak hour trips are therefore:

430 primary school students x 0.5 trips = 215 trips to the school and 215 trips from the school for both the am and pm peak hours.

1200 high school students x 0.5 trips = 600 trips to the school and 600 trips from the school for both the am and pm peak hours.

The total trips associated with the two schools is therefore forecast to be around 815vph inbound and 815vph outbound. There will also be some shared trips between the two schools.

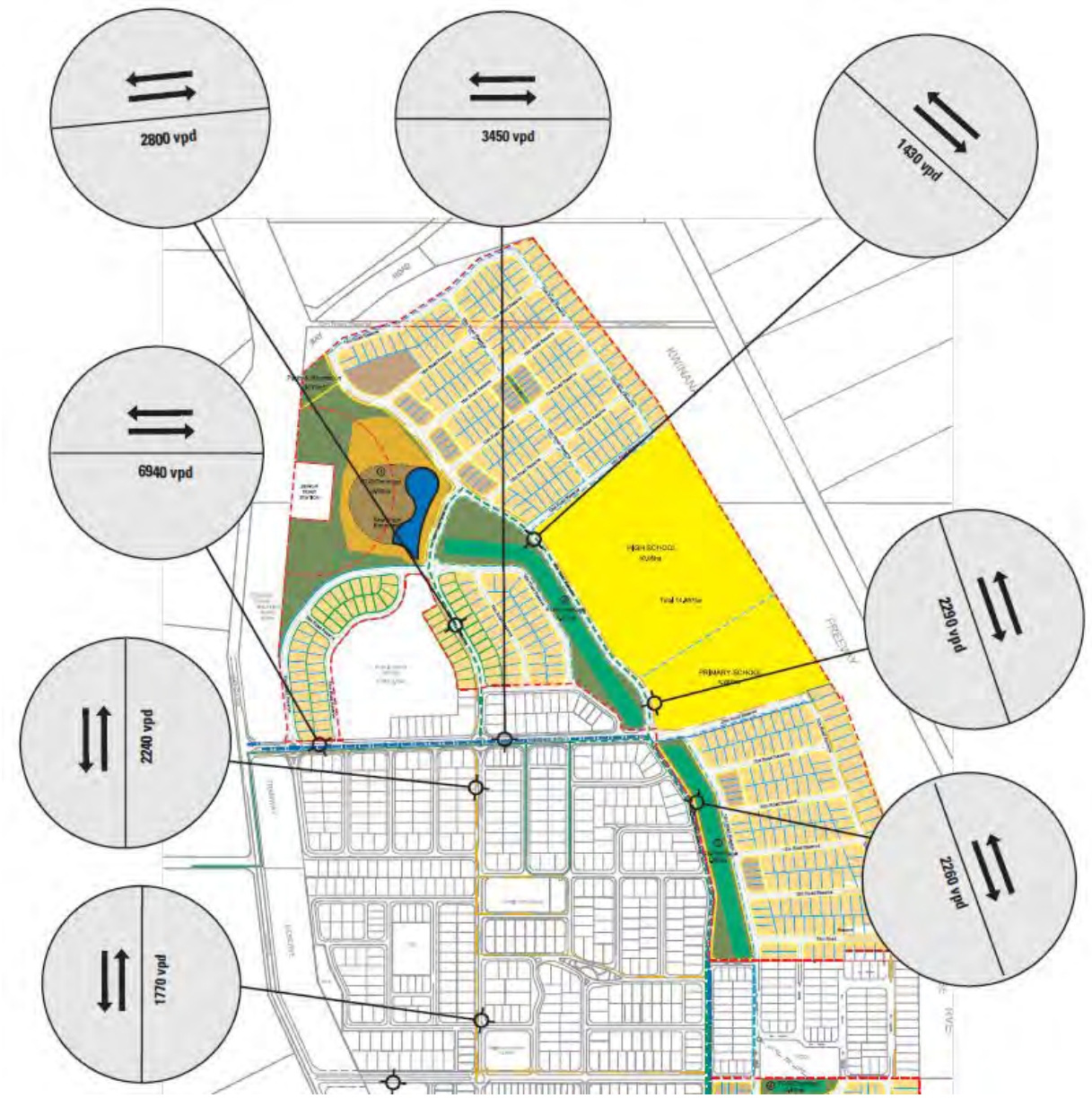
It is also noted that pm peak hour trips to the two schools are also likely to be spread over a longer period due to the differing finish times.

Primary School Hours 8.30am - 3pm.

High School Hours 8.30am – 3.30pm

The following Figure indicates the forecast daily traffic volumes on the road network in the vicinity of the schools based on the Cardno report prepared for response to the City of Rockingham in October 2009.

Figure 4 Forecast Traffic Volumes (Full Development)



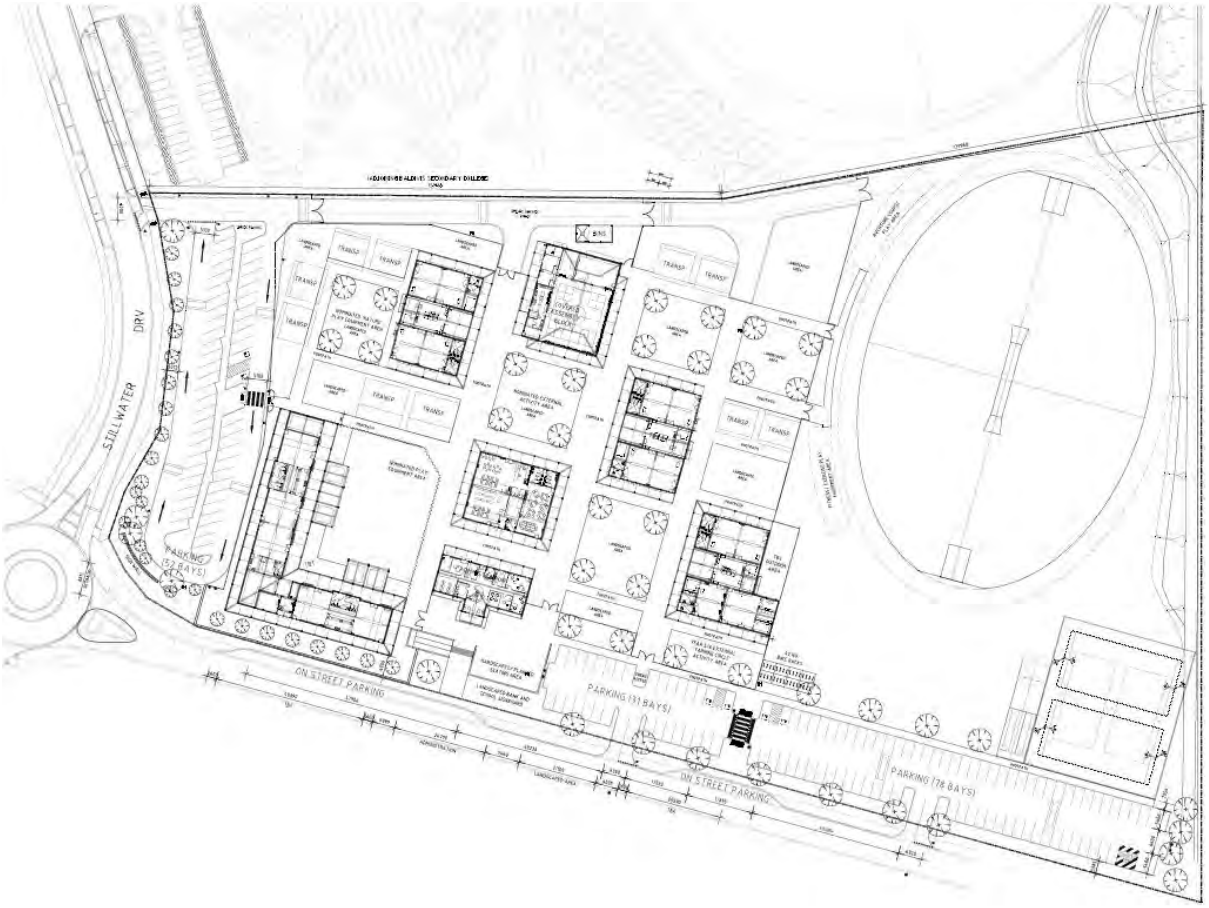
3.3 School Layout Plan

Figure 5 provides the proposed layout plan for the school. Also refer to Appendix A for a more detailed plan.

3.3.1 Traffic Circulation

The proposed accesses and car parking areas are shown on the following layout plan.

Figure 5 Site Layout Plan



Stillwater Drive

Traffic accessing the Drop Off area from Stillwater Road (NB) could be in conflict with traffic manoeuvring into/out of the embayed access directly opposite the intersection. It is recommended that the three bays opposite the intersection are removed.

The access to the Drop Off area is located approximately 97m from the roundabout at Rivergums Blvd/Stillwater Drive.

The likely queue back from the roundabout has been checked to determine if the access could be blocked. Peak hour traffic volumes have been derived and these have been increased by 10% for a robust assessment.

Based on the likely movements at the roundabout due to the High School and Primary School activity, analysis indicates a queue length of 35m (4-5 vehicles) southbound on Stillwater Drive North. No issues are therefore apparent.

Table 2 Rivergums Boulevard/Stillwater Drive Intersection Analysis

Rivergums Blvd Stillwater Drive Full Devt
Roundabout
Flow Scale Analysis (Practical Capacity): Results for Flow Scale (chosen as largest for any movement) = 110.0 %

Movement Performance - Vehicles

Mov ID	ODMov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Stillwater Dr South											
1	L2	52	2.0	0.299	5.9	LOS A	1.9	13.4	0.66	0.70	45.4
2	T1	157	2.0	0.299	5.8	LOS A	1.9	13.4	0.66	0.70	46.3
3	R2	52	2.0	0.299	10.2	LOS B	1.9	13.4	0.66	0.70	45.6
Approach		262	2.0	0.299	6.7	LOS A	1.9	13.4	0.66	0.70	46.0
East: Rivergum Blvd E											
4	L2	28	2.0	0.293	7.7	LOS A	1.9	13.4	0.77	0.80	43.4
5	T1	125	2.0	0.293	7.6	LOS A	1.9	13.4	0.77	0.80	44.4
6	R2	56	2.0	0.293	11.9	LOS B	1.9	13.4	0.77	0.80	44.5
Approach		208	2.0	0.293	8.7	LOS A	1.9	13.4	0.77	0.80	44.3
North: Stillwater Dr N											
7	L2	101	2.0	0.561	7.2	LOS A	4.9	35.1	0.78	0.84	42.9
8	T1	126	2.0	0.561	7.1	LOS A	4.9	35.1	0.78	0.84	45.0
9	R2	277	2.0	0.561	11.4	LOS B	4.9	35.1	0.78	0.84	45.1
Approach		504	2.0	0.561	9.5	LOS A	4.9	35.1	0.78	0.84	44.7
West: Rivergum Blvd W											
10	L2	271	2.0	0.587	5.4	LOS A	5.1	36.4	0.69	0.69	45.2
11	T1	89	2.0	0.587	5.3	LOS A	5.1	36.4	0.69	0.69	45.3
12	R2	271	2.0	0.587	9.6	LOS A	5.1	36.4	0.69	0.69	46.2
Approach		631	2.0	0.587	7.2	LOS A	5.1	36.4	0.69	0.69	45.6
All Vehicles		1605	2.0	0.587	8.0	LOS A	5.1	36.4	0.72	0.75	45.2

Rivergums Blvd

Note: The road is outside of the DoE immediate control, and it is envisaged that the road will only be in place at the end of December 2015, and the subdivision was originally proposed for mid 2017.

The distance between the first parking embayment and the roundabout is approximately 37m. If a vehicle waits to access the embayment there is some potential for following eastbound vehicles to queue back to the roundabout, it is suggested that an additional 6m is gained by starting the embayment further east to minimise the risk of queuing back.

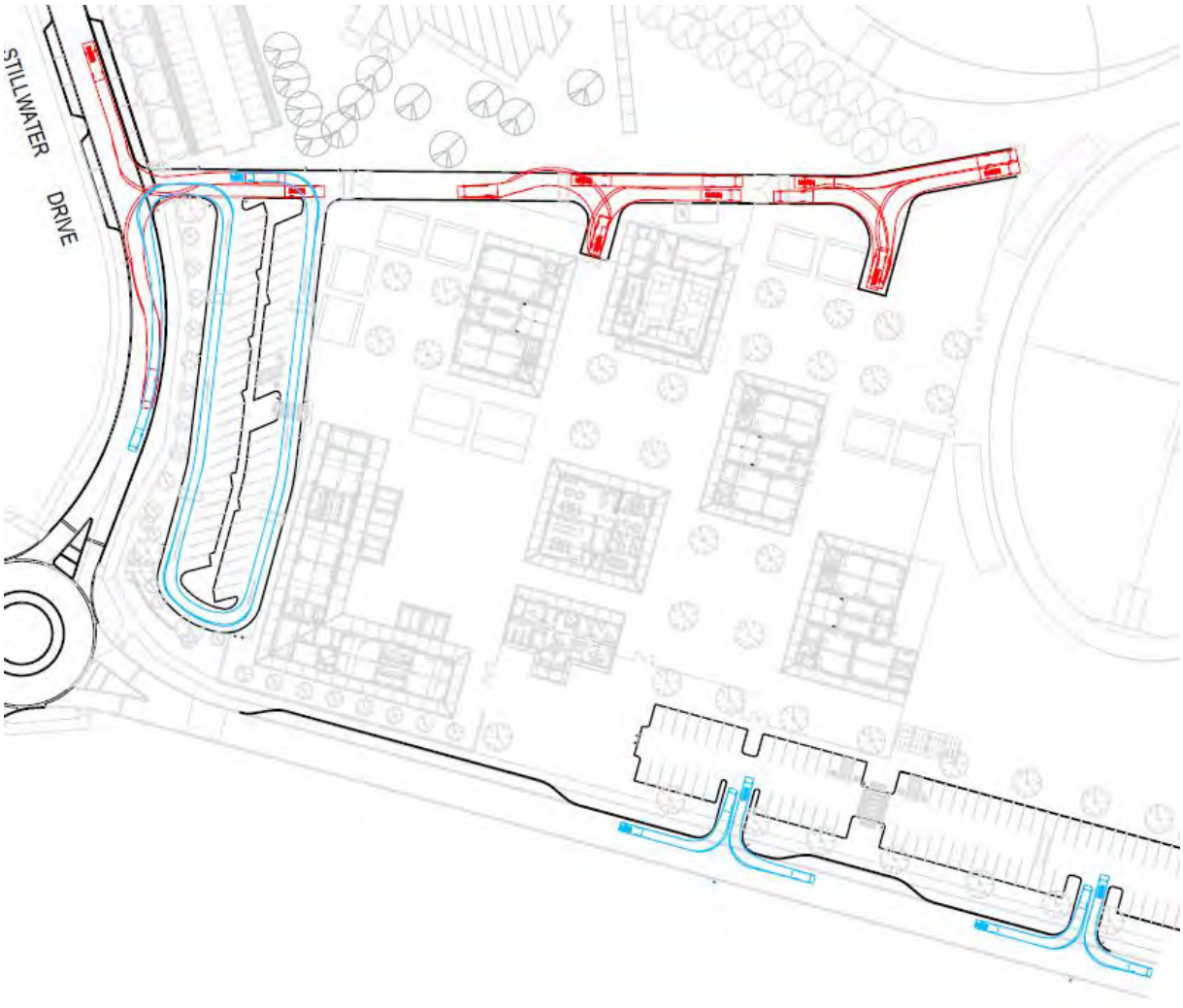
The intersection analysis indicates a WB queue of 13m in Rivergums Blvd East approaching the roundabout. No issues are therefore apparent related to westbound queuing.

3.3.2 Swept Path Analysis

A swept path analysis has been undertaken of the access points for service vehicle access and car access.

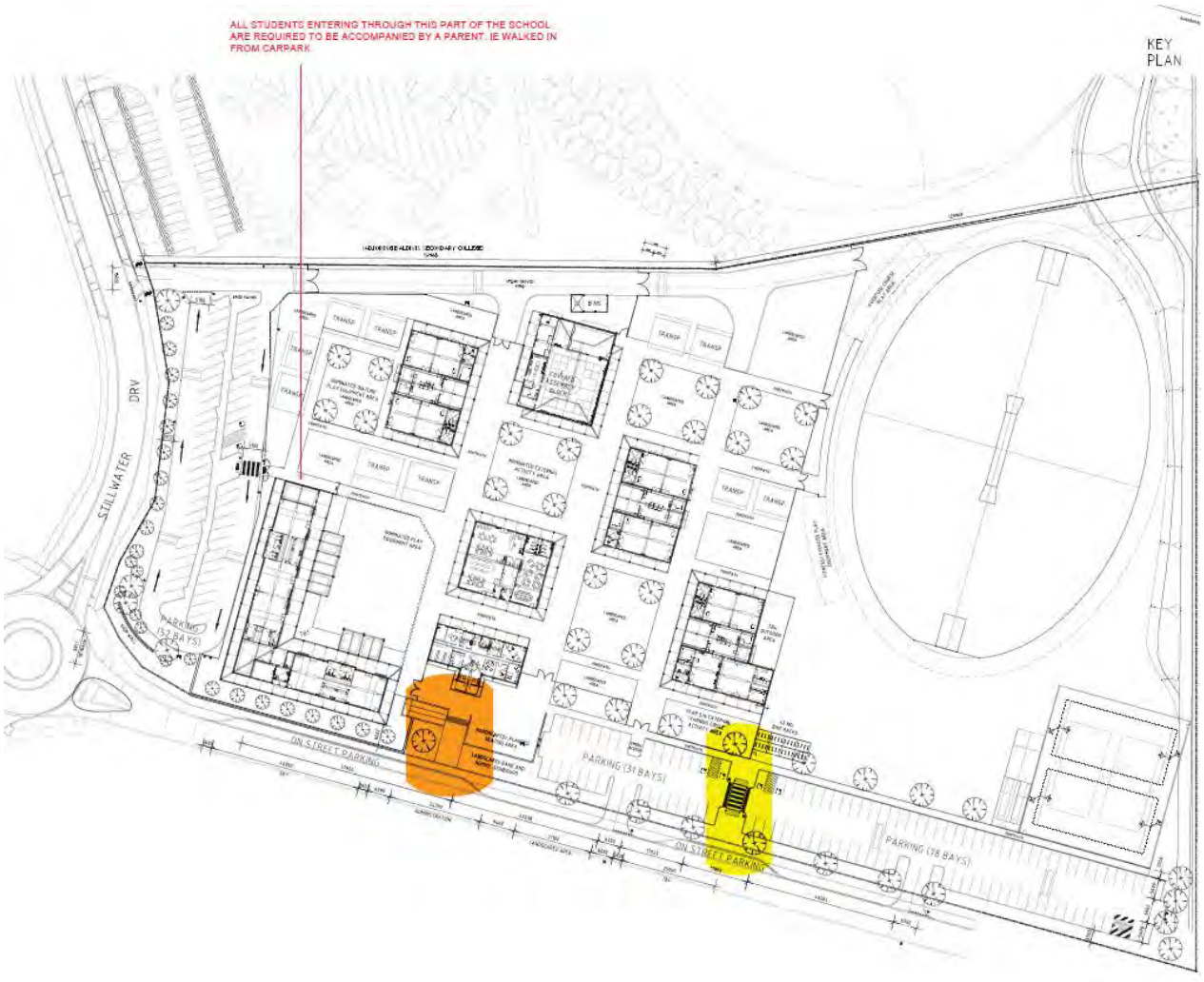
Minor adjustments are required to the accesses as shown to accommodate the turning requirements for the design vehicles.

Figure 6 Swept Path Analysis



3.3.3 Pedestrian Access into School

Figure 7 Pedestrian Access



There are two pedestrian access points off Rivergum Blvd, the orange one being the main entrance in front of the admin building.

The carpark off Stillwater Drive caters for TB1 and TB2 (lower school) and these children will be accompanied into the school grounds by a parent.

3.3.4 Safewalk/Cycle Route

As part of the High School development, paths have been constructed on each side of Stillwater Drive. A 2.5m shared path on the east side of the road and a 2m path on the west side.

The proposed layout plan includes pedestrian crossing facilities at the roundabout at the Stillwater Drive/Rivergums Boulevard intersection.

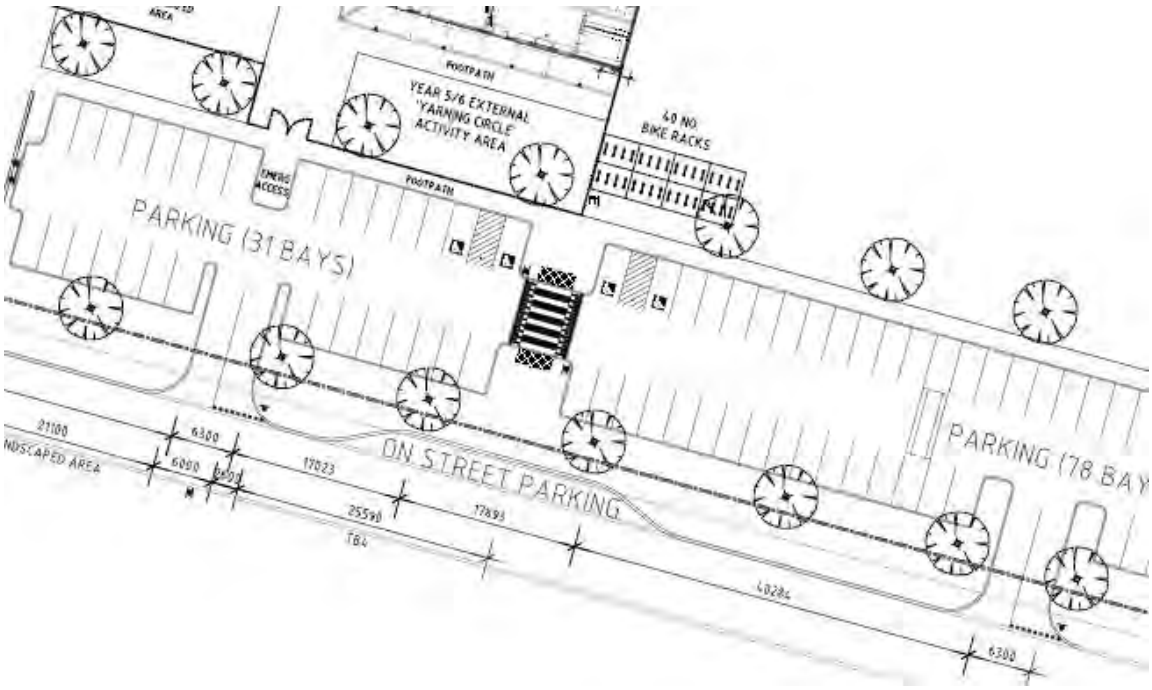
A 2m path is proposed in Redgum Boulevard adjacent to the Primary School.

A mid-block pedestrian crossing facility has been constructed in Stillwater Drive adjacent to the High School as previously proposed. Figure 8 refers.

Figure 8 Existing Crossing Facility adjacent to High School

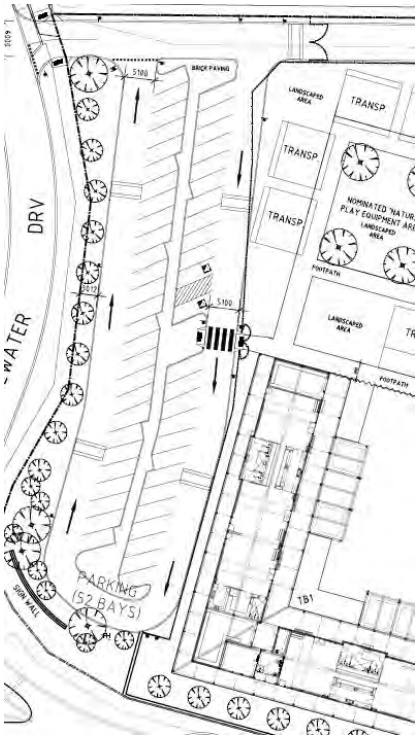
40 bicycle racks are proposed adjacent to the car park off Rivergums Boulevard. Direct access is available via the path adjacent to Rivergums Blvd and includes a crossing facility through the car park.

Figure 9 Bike Rack Facilities



The Drop Off area has been designed around a central footpath and directs pedestrians to cross at a designated pedestrian crossing to access the school.

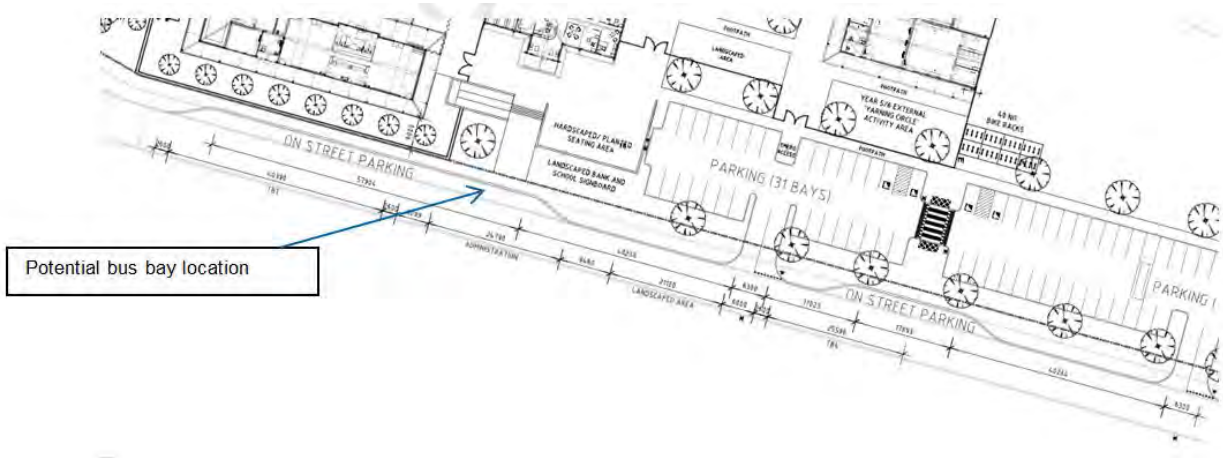
Figure 10 Designated Crossing Facility within drop off area



3.3.5 Bus Parking

There will be a demand for bus parking at the site from time to time and the DOE have advised that this will be managed within on-street parking. A designated are should be assigned within one of the embayment's adjacent to the school.

Figure 11 Provision for Bus Parking



3.3.6 Car Parking

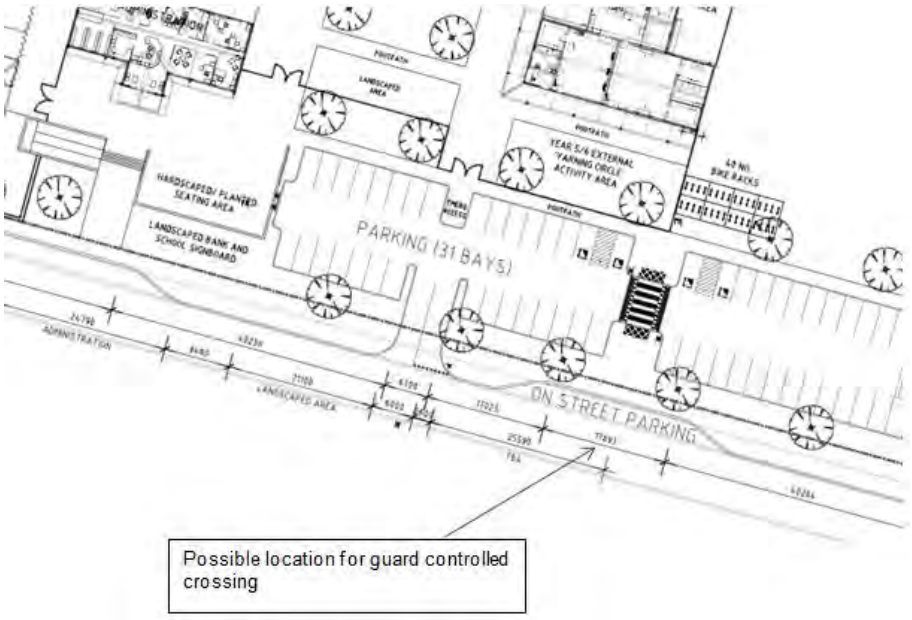
Based on the car parking requirements advised by the City of Rockingham 92 car bays are required, 151 bays with additional disabled bays are proposed and provision is therefore considered adequate.

3.4 Guard Controlled Crossing

The City of Rockingham have asked for consideration of the location of a future guard controlled crossing.

It is considered that a high proportion of access is likely to be from the south due to the layout of the precinct and a suitable location for a future crossing is likely to be in Rivergums Boulevard adjacent to the Primary School east of the first access. Sight distance of the crossing is good and a direct route achieved into the school.

Figure 12 Guard Controlled Crossing location



It will be necessary to remove the single embayed parking area should a future guard controlled crossing eventuate. Rivergums Blvd is 7.2m wide adjacent to the School.

3.5 Rivergums Blvd/Stillwater Drive Intersection

As discussed above, peak hour analysis has been undertaken of the operation of the intersection to assess its performance.

The analysis indicates a good operational performance with a forecast level of service of A with no significant queuing or delays.

4. Liaison with City of Rockingham

Liaison was undertaken with the City of Rockingham (Manager Engineering Services) who confirmed the following issues to be addressed.

- The current car parking requirements are 14 pickup and set down bays per 100 children and 1 bay each for staff members. This represents 4.3 x 14 bays + 32 staff bays = 92 bays.
- The location of a future guard controlled crossing should be considered and any parking bays should not encroach into the area i.e 20m in advance and 10m on departure.
- Traffic generation analysis not required as this was already considered as part of development of the Structure Plan. However operation and performance of local intersections, access and movement need to be considered to avoid impacts to other access and intersections.

- A swept path analysis also required.

Councils earlier comments are included as follows:

- A detailed Transport Assessment should be provided to demonstrate trip generation during peak hours. This should include a sweep path analysis of the service vehicles, a safe walk/cycle to school assessment and a traffic management plan for the frontage roads, in accordance with the WAPC Transport Assessment Guidelines for Developments Volume 4 – Individual Developments.
- The sight lines at all three access driveways (one on Stillwater Drive, two on Rivergum Boulevard) is inadequate due to the on-street parking in close proximity. Any parking vehicles, mainly on the right hand side of the access driveways, will obstruct the view of drivers leaving the car park to observe approaching vehicles. The on-street parking should be modified in accordance with AS2890.1 Section 3.2.4 Sight distance at access driveway exits.
- Car Park on Stillwater Drive:
    - A kerb ramp is located at the southern end, however there is no connection to the footpath on the corner of Stillwater Drive/Rivergum Boulevard intersection. The proposed sign wall and landscape will not allow pedestrians to walk across. This kerb ramp should be removed. (Has been addressed.)
    - The layout for the 7th parking space counting from the south on the western parking aisle is substandard. (Ref: AS2890.1) (Has been addressed.)
    - Given the above, a suggestion is to remove this substandard parking space and provide a footpath connection to the footpath on Stillwater Drive extending across from the western gate/crossing. (Not feasible due to level difference.)
    - There is no indication on any proposed cycle facilities within the development. Cycling facilities such as bicycle racks and shelters should be incorporated to encourage alternative forms of transport. (Has been addressed.)
    - The development has not allocated any bus parking areas. Arrangements need to be clarified for school bus access and parking. (Has been addressed.)

5. Conclusions and Recommendations

The following conclusions and recommendations are made based on the transport assessment.

Following the transport assessment a revised plan is shown in Appendix A.

It is understood that the Primary School will have 430 students and the High School 1200 students.

430 Primary School students x 0.5 trips = 215 trips to the school and 215 trips from the school for both the am and pm peak hours.

1200 High School students x 0.5 trips = 600 trips to the school and 600 trips from the school for both the am and pm peak hours.

Traffic accessing the Drop Off area from Stillwater Road (NB) could be in conflict with traffic manoeuvring into/out of the embayed access directly opposite the intersection. It is recommended that the three bays opposite the intersection are removed.

Based on the likely movements at the roundabout due to the High School and Primary School activity, analysis indicates a queue length of 32m (4-5 vehicles) southbound on Stillwater Drive North. No issues are therefore apparent.

In Redgum Boulevard adjacent to the school, the distance between the first parking embayment and the roundabout is approximately 37m. If a vehicle waits to access the embayment there is some potential for following eastbound vehicles to queue back to the roundabout, it is suggested that an additional 6m is gained by starting the embayment further east to minimise the risk of queuing back and allow other traffic to pass.

The intersection analysis indicates a WB queue of 9m in Rivergums Blvd East approaching the roundabout. No issues are therefore apparent related to westbound queuing.

A swept path analysis has been undertaken of the access points for service vehicle access and car access. Minor adjustments are required to the accesses (as shown) to accommodate the turning requirements for the design vehicle (service vehicle).

Based on the car parking requirements advised by the City of Rockingham 92 car bays are required, 151 bays with additional disabled bays are proposed and provision is therefore adequate.

Paths and crossing facilities are proposed in and around the school site and provide good connectivity.

Cycle facilities, racks, are provided to serve the Primary School and have good access.

There will be a demand for bus parking at the site from time to time and the DoE have advised that this will be managed within on-street parking. A designated are should be assigned within one of the embayment's adjacent to the school.

Public bus services already serve the High School and will be added to in the future.

The City of Rockingham have asked for consideration of the location of a future guard controlled crossing. A location is proposed in Rivergums Boulevard adjacent to the school. It will be necessary to remove the single embayed parking area (eastern) should a future guard controlled crossing eventuate.

Peak hour analysis has been undertaken of the operation of the Stillwater Drive/Rivergums Boulevard intersection to assess its performance. The analysis indicates a good operational performance with a forecast level of service of A with no significant queuing or delays.

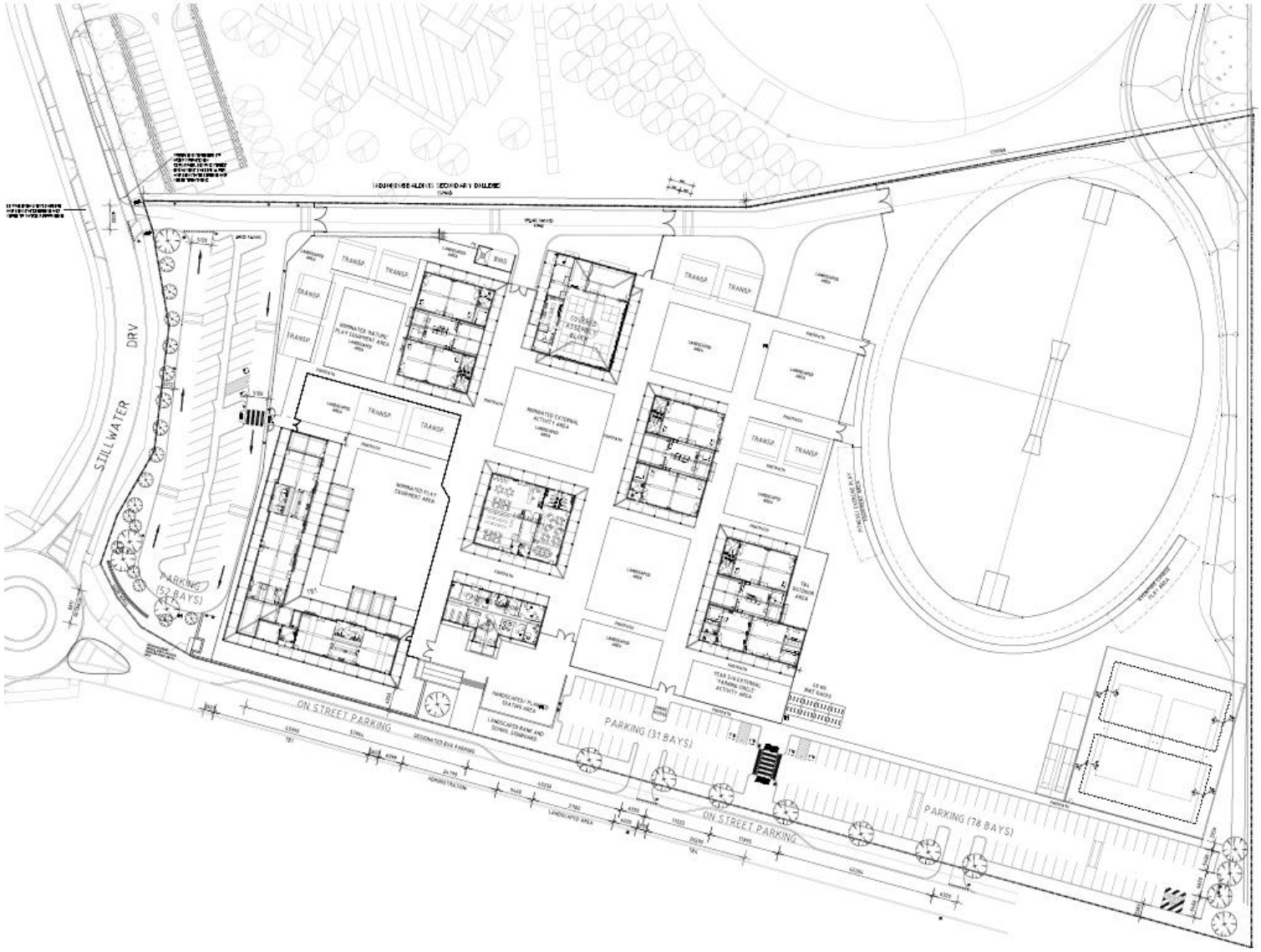
Car parking bays in Stillwater Drive adjacent to the access to the Drop off area need to be removed to achieve appropriate sight distance.

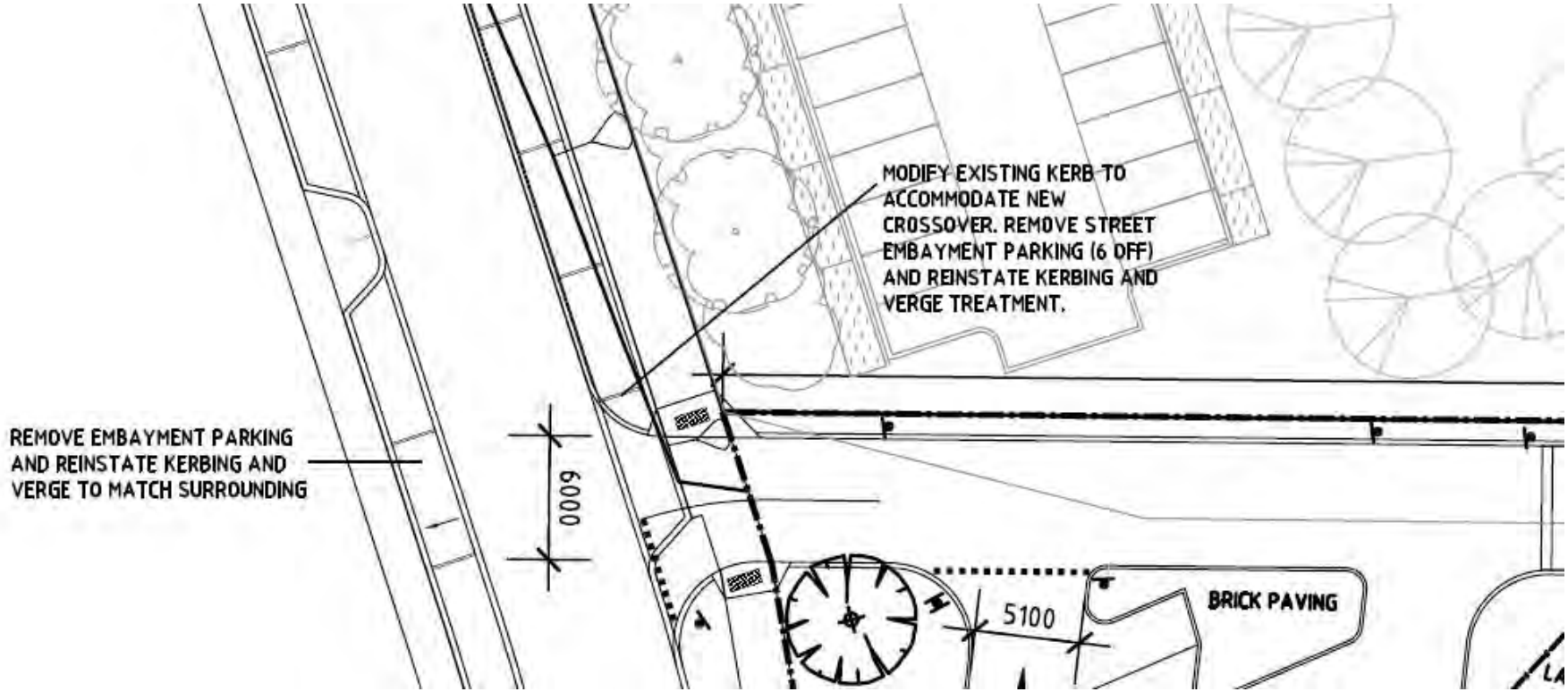
It is acknowledged that a standard 40km/h speed zone will operate adjacent to the School(s) during drop off and pick up times.

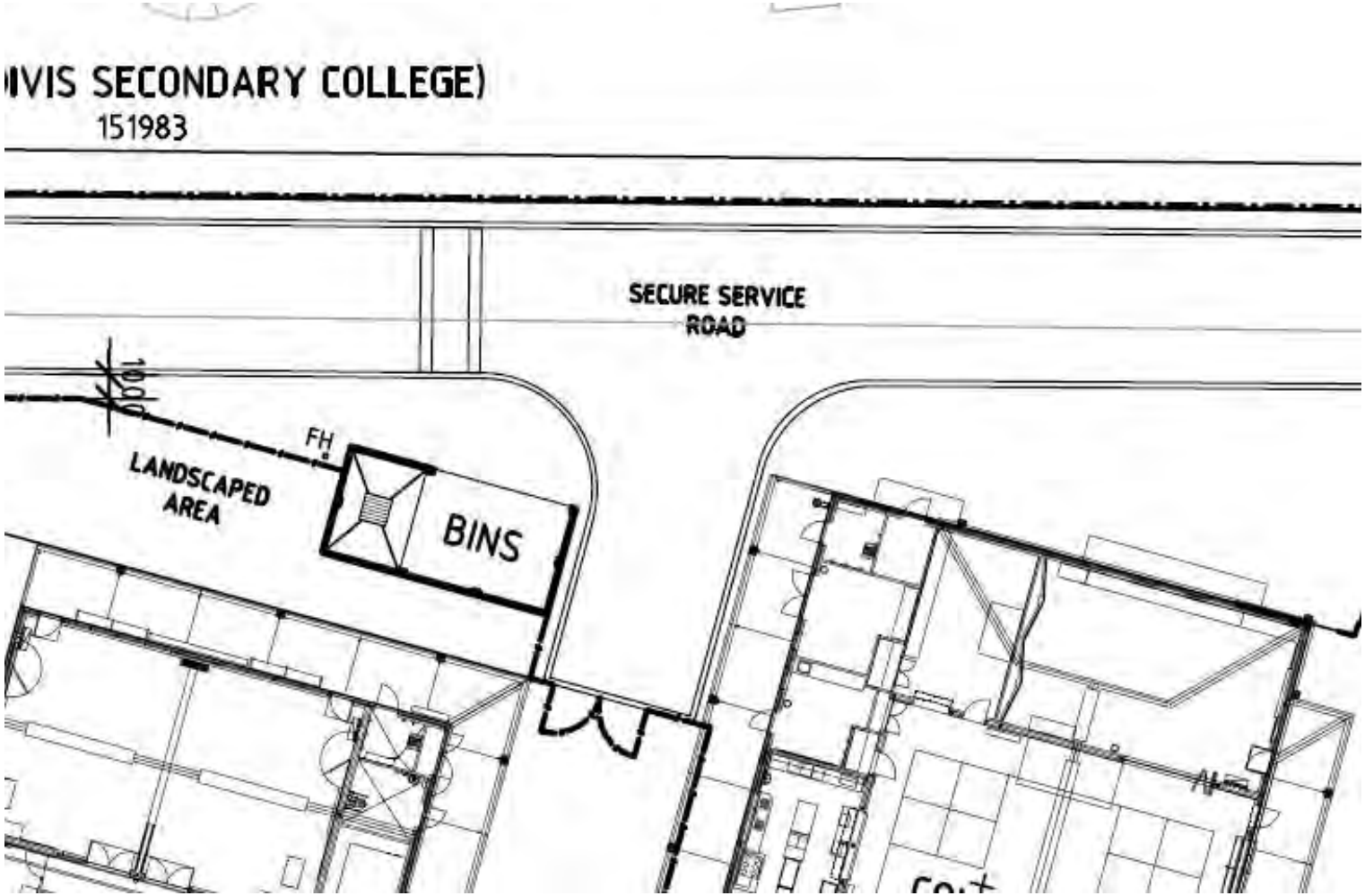
Parking restrictions should be imposed in Rivergums Boulevard opposite the school to restrict parking during drop off and pick up times to minimise pedestrian crossing movements.

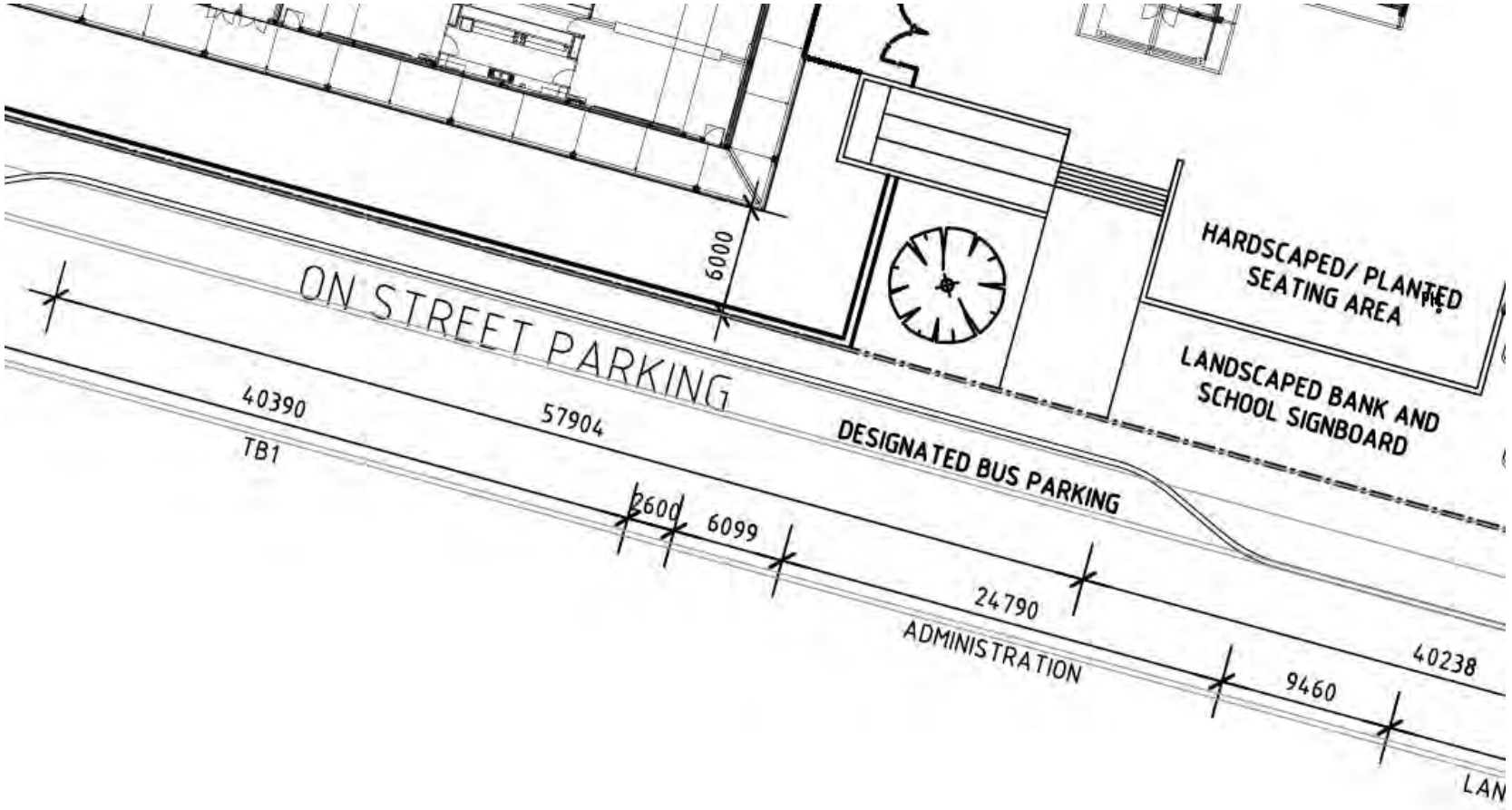
Appendices

Appendix A - (Updated Plan Incorporating Transport Recommendations)


STILLWATER DRV
PARKING (52 BAYS)
ON STREET PARKING
PARKING (31 BAYS)
ON STREET PARKING
PARKING (78 BAYS)


MODIFY EXISTING KERB TO ACCOMMODATE NEW CROSSOVER. REMOVE STREET EMBAYMENT PARKING (6 OFF) AND REINSTATE KERBING AND VERGE TREATMENT.
REMOVE EMBAYMENT PARKING AND REINSTATE KERBING AND VERGE TO MATCH SURROUNDING
6000
5100
BRICK PAVING


IVIS SECONDARY COLLEGE)
151983
SECURE SERVICE
ROAD
FH
LANDSCAPED
AREA
BINS


6000
HARDSCAPED/ PLANTED
SEATING AREA
LANDSCAPED BANK AND
SCHOOL SIGNBOARD
ON STREET PARKING
DESIGNATED BUS PARKING
40390
TB1
57904
2600
6099
24790
ADMINISTRATION
9460
40238

GHD

GHD House, 239 Adelaide Tce. Perth, WA 6004
P.O. Box 3106, Perth WA 6832
T: 61 8 6222 8222 F: 61 8 6222 8555 E: permail@ghd.com.au

\\ghdnet\ghd\AU\Perth\Projects\61\31211\WP\143326.docx

Document Status

Rev No.	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	S McDermott	J De Villiers	J De Villiers	J De Villiers	J De Villiers	31/7/2014

www.ghd.com

Our Ref: 20.2014.239.1 – AD14/82694

Enquiries to: Mr Craig Zanotti

12th August 2014

city of Rockingham
where the coast comes to life

www.rockingham.wa.gov.au

The Secretary
Western Australian Planning Commission
Locked Bag 2506
PERTH WA 6001

Dear Sir/Madam

Re: Proposed Educational Establishment (Rivergums Primary School) - Lot 804 (No.31) Stillwater Drive, Baldivis

I refer to the above application which was referred to the Commission on the 26th June 2014. The City has completed its assessment of the proposed primary school and advises that it does not object to the proposal, subject to the following conditions being imposed.

1. This Approval shall be in accordance with the amended development application plans (Drawing No. A1.01 Rev. E), received by the City on the 7th August 2014.

2. The development must be in accordance with the GHD Report for Bateman Architects – Rivergum Primary School Traffic Impact Assessment dated July 2014.

3. Earthworks and batters must be stabilised to prevent sand blowing and dust nuisance, for the duration of development.

4. All stormwater must be contained and disposed of on-site at all times, to the satisfaction of the City for, and certified by a Hydraulic Engineer, with all permanent and temporary stormwater drainage basins being designed to control the breeding of mosquitoes.

5. The street setback area and all verge areas must be landscaped and reticulated, prior to the occupation of the development and must be maintained at all times.

6. The carpark must:

   (i) Provide a minimum of 161 car parking bays on-site;

   (ii) be designed in accordance with Australian/New Zealand Standard AS/NZS 2890.1:2004, Parking facilities, Part 1: Off-street car parking unless otherwise specified by this approval, prior to applying for a Building Permit - Certified;

   (iii) include six car parking space(s) dedicated to people with disabilities designed in accordance with Australian/New Zealand Standard AS/NZS 2890.6:2009, Parking facilities, Part 6: Off-street parking for people with disabilities, linked to the main entrance of the development by a continuous accessible path of travel designed in accordance with Australian Standard AS 1428.1—2009, Design for access and mobility, Part 1: General Requirements for access—New building work;

   (iv) be constructed, sealed, kerbed, drained and marked prior to the development being occupied and maintained thereafter;

civic boulevard rockingham wa
po box 2142 rockingham dc wa 6967
t 9528 0333 f 9592 1705 e council@rockingham.wa.gov.au

(v) have lighting installed, prior to the occupation of the development; and

(vi) confine all illumination to the land in accordance with the requirements of Australian Standard AS 4282—1997, Control of the obtrusive effects of outdoor lighting, at all times.

The car park must comply with the above requirements for the duration of the development.

7. A Landscaping Plan must be prepared and include the following detail, to the satisfaction of the City, prior to the commencement of site works:

   (i) The location, number and type of existing and proposed trees and shrubs, including calculations for the landscaping area;

   (ii) Any lawns to be established;

   (iii) Any natural landscape areas to be retained;

   (iv) Those areas to be reticulated or irrigated; and

   (v) Verge treatments.

   The landscaping must be completed prior to the occupation of the development, and must be maintained at all times to the satisfaction of the City.

8. A noise barrier wall being constructed along the Kwinana Freeway in accordance with the Lloyd George Acoustic Consultants Report (prepared for the Rivergums Structure Plan), prior to the use of the development. The noise barrier must be maintained at all times.

A footnote being denoted in accordance with the following:

1. The school canteen must comply with the Food Act 2008 and Food Safety Standards. Compliance must be achieved at all times and prior to the use of the development. The City's Health Services should be contacted in this regard.

2. It is understood that the Department will ensure that access to the development will be in accordance with Australian Standards 1428.1 Design for access and mobility.

Should you have any enquiries with respect to the aforementioned, please contact Mr Craig Zanotti on 9528 0397.

Yours faithfully

ERIKA BARTON
PROJECTS OFFICER

cc. Department of Education
Department of Finance
Bateman Architects
Town Planning Group

Noise Impact Assessment

The Rivergums
Proposed Development

Prepared For

Cedar Woods

December 2011

Reference: 506377-08a

LLOYD GEORGE
Acoustics

Report: 506377-08a

Lloyd George Acoustics Pty Ltd

ABN: 79 125 812 544

PO Box 717
Hillarys WA 6923

Offices:	Ocean Reef	Padbury	Scarborough	Waterford
Phone:	9300 4188	9401 7770	9245 3223	9313 3655
Fax:	9300 4199	9401 7770	9300 4199	9300 4199
Email:	daniel@lgacoustics.com.au	terry@lgacoustics.com.au	mike@lgacoustics.com.au	rebecca@lgacoustics.com.au
Mobile:	0439 032 844	0400 414 197	0438 201 071	0427 388 876

Member of the Association of Australian Acoustical Consultants – (AAAC)

Prepared By:	Terry George 
Position:	Project Director
Date:	16 December 2011

CONTENTS

APPENDICES

1 INTRODUCTION

Cedar Woods are extending their existing development referred to as The Rivergums, located east of Baldivis Road and south of Safety Bay Road – refer *Figure 1.1* and Staging Plan on following page. The development is to extend further east, up to the road reserve of the Kwinana Freeway.

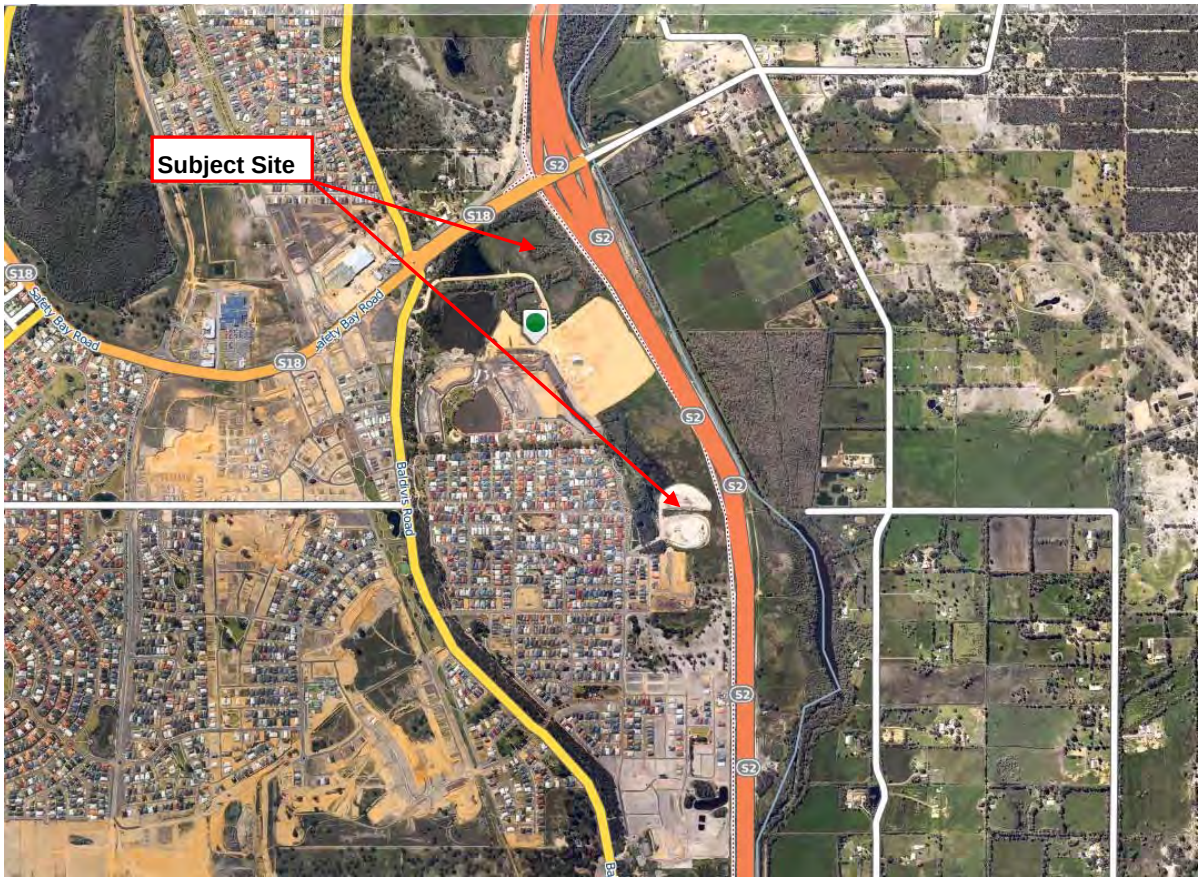


Figure 1.1 – Rivergums General Locality (Source: Nearmaps)

This report examines the potential noise impact from the Kwinana Freeway to the future residences. Note that the noise model of the Kwinana Freeway was already on file since Lloyd George Acoustics also worked with the Southern Gateway Alliance, responsible for constructing the road.

Appendix B contains a description of some of the terminology used throughout this report.

	Stage 8	Stage 9a	Stage 9b	Stage 10a	Stage 10b	Stage 11a	Stage 11b	Stage 12	Stage 13a	Stage 13b	Total
Proposed Lot Yield	95	55	60	85	80	57	57	83	53	59	684

2 CRITERIA

The criteria relevant to this assessment is the *State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning* (hereafter referred to as the Policy) produced by the Western Australian Planning Commission (WAPC). The objectives in the Policy are to:

- Protect people from unreasonable levels of transport noise by establishing a standardised set of criteria to be used in the assessment of proposals;
- Protect major transport corridors and freight operations from incompatible urban encroachment;
- Encourage best practice design and construction standards for new development proposals and new or redevelopment transport infrastructure proposals;
- Facilitate the development and operation of an efficient freight network; and
- Facilitate the strategic co-location of freight handling facilities.

The Policy's outdoor noise criteria are shown below in *Table 2.1*. These criteria applying at any point 1-metre from a habitable façade of a noise sensitive premises and in one outdoor living area.

Table 2.1 – Outdoor Noise Criteria

Period	Target	Limit
Day (6am to 10pm)	55 dB $L_{Aeq(\textbf{Day})}$	60 dB $L_{Aeq(\textbf{Day})}$
Night (10pm to 6am)	50 dB $L_{Aeq(Night)}$	55 dB $L_{Aeq(Night)}$

The 5 dB difference between the *target* and *limit* is referred to as the *margin*.

In the application of these outdoor noise criteria to new noise sensitive developments, the objectives of this policy is to achieve -

- acceptable indoor noise levels in noise-sensitive areas (eg bedrooms and living rooms of houses); and
- a 'reasonable' degree of acoustic amenity in at least one outdoor living area on each residential lot.

If a noise sensitive development takes place in an area where outdoor noise levels will meet the *target*, no further measures are required under this policy.

In areas where the *target* is exceeded, but noise levels are likely to be within the 5 dB margin (i.e. less than the *limit*), mitigation measures should be implemented by the developer with a view to achieving the *target* levels in at least one outdoor living area on each residential lot. Where indoor spaces are planned to be facing any outdoor area in the *margin*, mitigation measures should be implemented to achieve acceptable indoor noise levels in those spaces.

In areas where the *limit* is exceeded (i.e. above $L_{Aeq(Day)}$ of 60dB(A) or $L_{Aeq(Night)}$ of 55dB(A)), a detailed noise assessment is to be undertaken. Customised noise mitigation measures should be implemented with a view to achieving the *target* in at least one outdoor living area on each residential lot, or if this is not practicable, within the *margin*. Where indoor spaces are planned to be facing outdoor areas that are above the *target*, mitigation measures should be implemented to achieve acceptable indoor noise levels in those spaces.

3 METHODOLOGY

Construction of the Highway was completed in September 2009 and noise monitoring has been undertaken to quantify existing noise levels. Noise modelling has then been used to determine the future noise levels over the site and extent of noise control required.

3.1 Site Measurement Methodology

Noise monitoring was undertaken in order to:

- Quantify the existing noise levels;
- Determine the differences between different acoustic parameters ($L_{A10,18hour}$, $L_{Aeq\ (Day)}$ and $L_{Aeq\ (Night)}$); and
- Calibrate the noise model for existing conditions.

The instrument used was an ARL Type 316 noise data logger (pictured below in *Figure 3.1*). The logger was programmed to record hourly L_{A1}, L_{A10}, L_{A90}, and L_{Aeq} levels. This instrument complies with the instrumentation requirements of *Australian Standard 2702-1984 Acoustics – Methods for the Measurement of Road Traffic Noise*. The logger was field calibrated before and after the measurement session and found to be accurate to within +/- 1 dB. Lloyd George Acoustics also holds current laboratory calibration certificate for the loggers.

Figure 3.1 – Automatic Noise Data Logger

The noise logger was located 3-metres from the cadastral boundary of a nearby subdivision. This relates to a distance of approximately 14 metres from the principal shared path (PSP) and approximately 35 metres from the northbound carriageway.

The noise logger was set-up to obtain a minimum of 3 full weekdays, between 20 May and 31 May 2010.

Sound pressure levels were measured in accordance with Australian Standard 2702-1984: *Acoustics - Method For Measurement of Road Traffic Noise*, with the logger positioned at one metre from the façade of interest. The logger was placed at least one metre from any corner of the building and the microphone height was 1.4 metres above ground floor level.

From the hourly measurements, the $L_{A10,18\ hour}$, $L_{Aeq,24\ hour}$, $L_{Aeq\ (Day)\ and\ LAeq\ (Night)}$ values were determined for each complete measurement day. These results were averaged and the mean level reported.

The noise data collected was verified by inspection and professional judgement. Where hourly data was considered atypical, an estimated value was inserted and highlighted by bold italic lettering.

3.2 Noise Modelling

The computer programme *SoundPLAN 6.4* was utilised incorporating the *Calculation of Road Traffic Noise* (CoRTN) algorithms, modified to reflect Australian conditions. The modifications included the following:

- Vehicles were separated into heavy (Austroads Class 3 upwards) and non-heavy (Austroads Classes 1 & 2) with non-heavy vehicles having a source height of 0.5 metres above road level and heavy vehicles having two sources, at heights of 1.5 metres and 3.6 metres above road level, to represent the engine and exhaust respectively. By splitting the noise source into three, allows for less barrier attenuation for high level sources where barriers are to be considered. Note that corrections are applied to the exhaust of –8.0 dB (based on *Transportation Noise Reference Book, Paul Nelson, 1987*) and to the engine source of –0.8 dB, required to provide consistent results with the CoRTN algorithms for the no barrier scenario.
- An adjustment of –1.7 dB has been applied to the predicted levels based on the findings of *An Evaluation of the U.K. DoE Traffic Noise Prediction*; Australian Road Research Board, Report 122 ARRB – NAASRA Planning Group 1982.

Predictions are made at a height of 1.4 metres above ground floor level and at 1.0 metre from an assumed building façade (resulting in a + 2.5 dB correction due to reflected noise). In line with standard prediction methodology undertaken in Western Australia, the noise above the ground floor, particularly for two storey premises has not been considered in detail.

Various input data are included in the modelling such as ground topography, road design, traffic volumes etc and are discussed below.

3.2.1 Ground Topography, Road Design & Cadastral Data

Noise modelling is 3-dimensional so that landmarks such as hills and buildings are taken into account. The existing ground topography, cadastre and road design are on file due to the involvement of LG Acoustics with the Southern Gateway Alliance.

The future topography of the site has not been designed and therefore a value of 6.2 metres has been used as an estimate.

All buildings are assumed to be single storey, at a height of 3.5 metres.

3.2.2 Traffic Data

Traffic data includes:

- Road Surface – The noise relationship between different road surface types is shown below in *Table 3.1*.

Table 3.1 – Noise Relationship Between Different Road Surfaces

Road Surfaces						
Chip Seal			Asphalt			
14mm	10mm	5mm	Dense Graded	Novachip	Stone Mastic	Open Graded
+3.5 dB	+2.5 dB	+1.5 dB	0.0 dB	-0.2 dB	-1.0 dB	-2.5 dB

The road surface in this section of the Kwinana Freeway is open graded asphalt with intersections and side roads being dense graded asphalt.

- Vehicle Speed – Existing and future posted speeds are 100km/hr.

- Traffic Volumes –Traffic counts were undertaken after the road was open and provided by MRWA. These along with the forecast volumes used in the Kwinana Freeway Extension project are shown in *Table 3.2*.

Table 3.2 – Traffic Volumes and Percentage Heavy Vehicle

Section	Existing		Year 2031	
	Day (0600 hours to midnight)	Night (2200 to 0600 hours)	Day (0600 hours to midnight)	Night (2200 to 0600 hours)
Kwinana Freeway – Safety Bay Road to Karnup Road				
Volumes	28158	2348	55670	2930
Percentage Heavy Vehicles	13.2	19.8	7	15

3.2.3 Ground Attenuation

The ground attenuation has been assumed to be 0.25 (25%) within the road reserve and 0.9 (90%) outside of the reserve, where 0.0 represents hard reflective surfaces such as water and 1.00 represents absorptive surfaces such as grass.

3.2.4 Parameter Conversion

The CoRTN algorithms used in the *SoundPlan* modelling package were originally developed to calculate the $L_{A10,18hour}$ noise level. The WAPC draft policy however uses $L_{Aeq(Day)}$ and $L_{Aeq(Night)}$. The relationship between the parameters varies depending on the composition of traffic on the road (volumes in each period and percentage heavy vehicles).

The results of the noise logger are used as the basis to determine the difference between the parameters.

4 RESULTS

4.1 Noise Monitoring

The results of the noise monitoring are summarised below in *Table 4.1* and shown graphically in *Figures 4.1 and 4.2*.

Table 4.1 – Measured Noise Levels – 35m from Kwinana Freeway

Date	Parameter			
	$L_{A10,18hour}$	$L_{Aeq,24hour}$	$L_{Aeq(Day)}$	$L_{Aeq(Night)}$
Tue 25 May 2010	63.5	60.6	61.8	56.6
Wed 26 May 2010	64.3	61.0	62.1	57.3
Thu 27 May 2010	64.2	61.7	62.7	58.8
Fri 28 May 2010	64.0	61.1	62.3	56.2
Sat 29 May 2010	62.3	58.9	60.2	54.1
Sun 30 May 2010	61.5	58.3	59.7	52.8
Weekday Average	**64.0**	**61.1**	**62.2**	**57.2**

Note: Weekend data has been provided for information purposes only. The criteria apply only to weekday measurements as defined in the Main Roads' Noise Measurement Specification.

The average weekday levels are shown as 64.0 dB $L_{A10,18hour}$, 62.2 dB $L_{Aeq(Day)}$ and 57.2 dB $L_{Aeq(Night)}$. The average difference between the $L_{A10,18hour}$ and $L_{Aeq(Day)}$ is 1.8 dB. The average difference between the $L_{Aeq\ (Day)}$ and $L_{Aeq\ (Night)}$ is 5.0 dB.

Figure 4.1
Weekday Noise Monitoring alongside Kwinana Freeway
3m From Cadastral Boundary

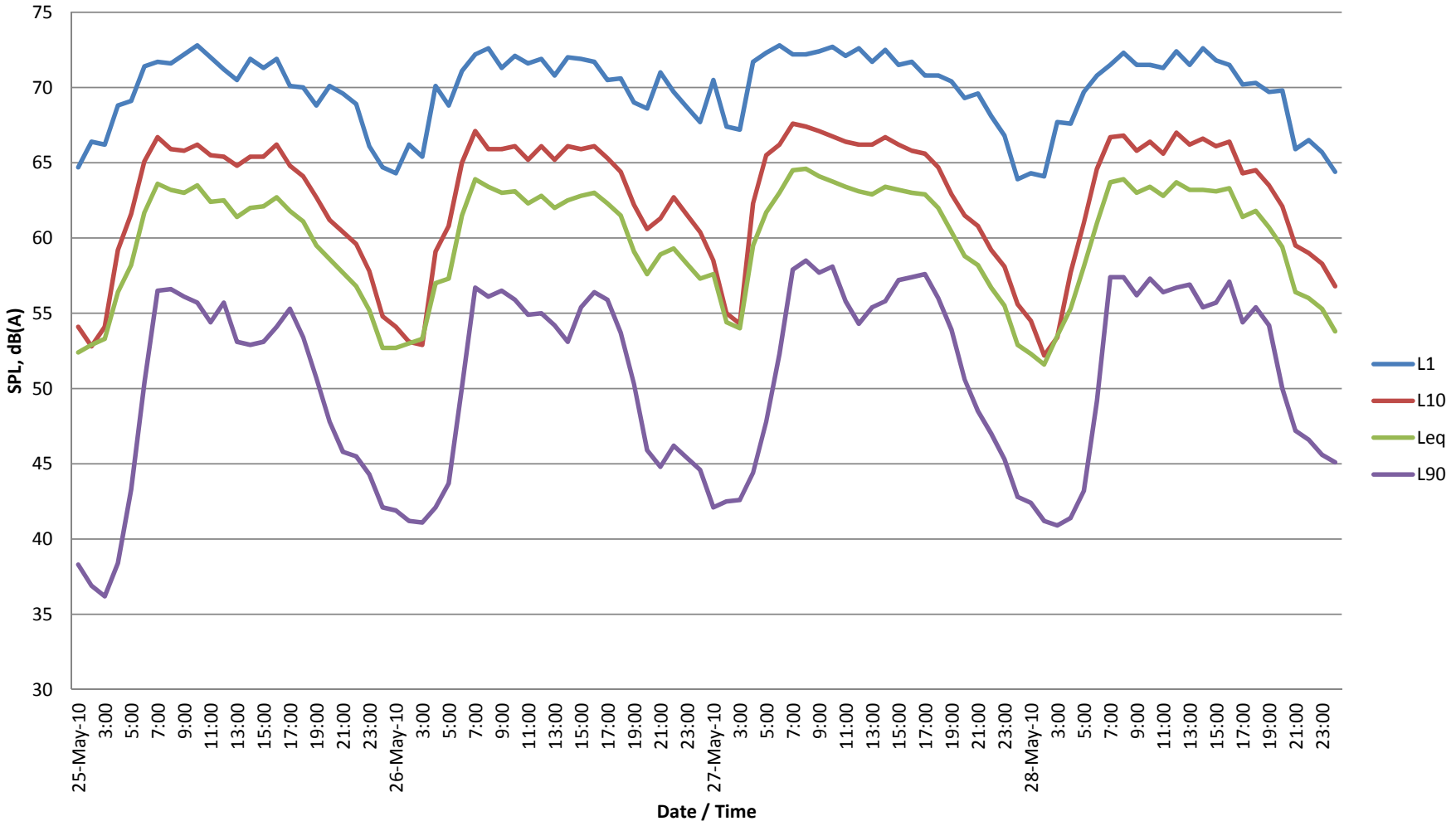
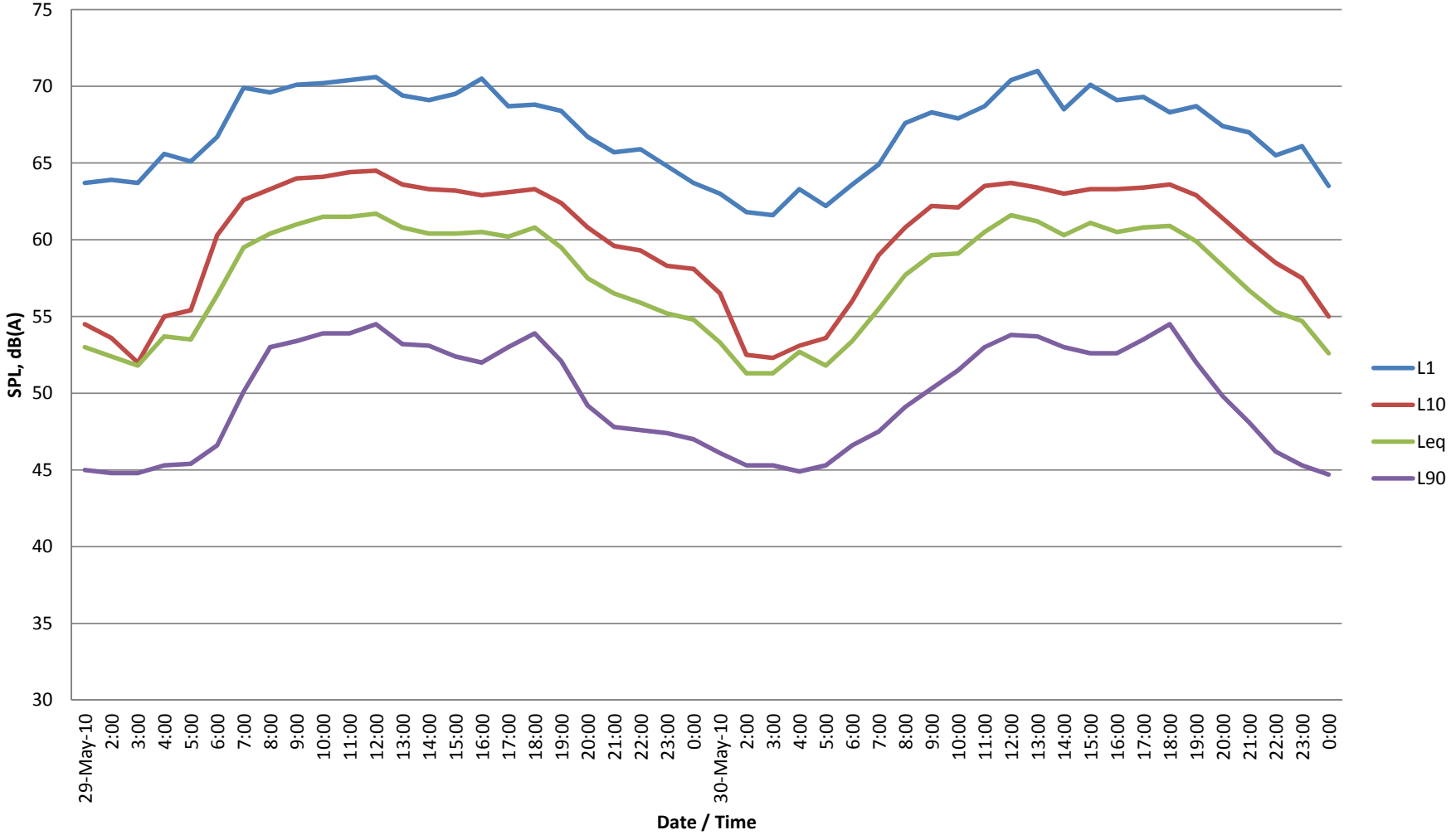


Figure 4.2
Weekend Noise Monitoring alongside Kwinana Freeway
3m From Cadastral Boundary



4.2 Noise Modelling

4.2.1 Model Accuracy

The existing traffic volume information provided by MRWA (refer *Table 3.2*) was incorporated into the noise model, with the noise levels then predicted to the logger location. As discussed in *Section 3.2.4*, the noise model calculates the $L_{A10,18hour}$ value, in this case predicting a level of 65.0 dB $L_{A10,18hour}$. Hence the noise model is over-predicting the $L_{A10,18hour}$ parameter by 1.0 dB. The noise modelling has therefore been adjusted by this amount.

4.2.2 Future Noise Levels Across Subject Site

Single point calculations were initially undertaken to determine the noise level with no noise control. Based on the calculated noise levels, a barrier design was determined. *Table 4.2* provides the predicted future noise levels at each of the receiver locations shown in *Figure 4.3*, assuming the proposed barrier also noted in *Figure 4.3*. *Figure 4.4* then provides the predicted future noise contours over the site, again with the *Figure 4.3* barrier in place.

Table 4.3 – Summary of Calculated Noise Levels (No Noise Control)

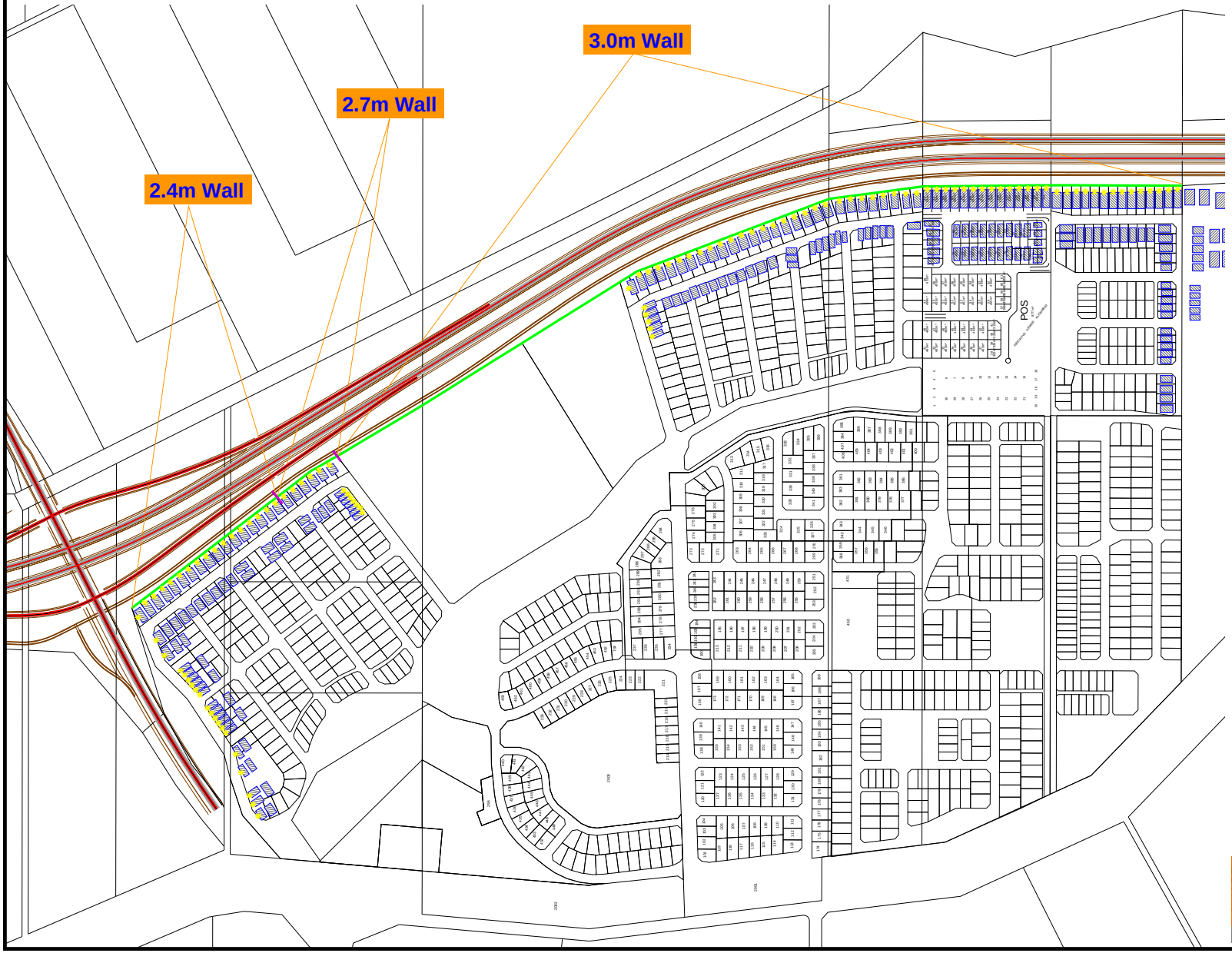
Receiver Number	$L_{Aeq(Day)}$	Receiver Number	$L_{Aeq(Day)}$
1	57	56	58
2	58	57	58
3	59	58	58
4	60	59	58
5	60	60	58
6	60	61	58
7	60	62	58
8	60	63	58
9	60	64	58
10	60	65	58
11	60	66	58
12	61	67	58
13	61	68	58
14	61	69	58
15	61	70	58
16	61	71	58
17	61	72	58
18	61	73	58
19	59	74	58
20	59	75	58

Receiver Number	$L_{Aeq(Day)}$	Receiver Number	$L_{Aeq(Day)}$
21	57	76	58
22	57	77	58
23	57	78	58
24	57	79	58
25	57	80	58
26	57	81	58
27	58	82	58
28	58	83	58
29	58	84	58
30	58	85	58
31	59	86	58
32	59	87	58
33	59	88	58
34	59	89	58
35	59	90	58
36	59	91	58
37	59	92	58
38	59	93	58
39	59	94	58
40	59	95	58
41	59	96	58
42	59	97	58
43	56	98	59
44	56	99	59
45	56	100	59
46	55	101	59
47	55	102	59
48	55	103	59
49	55	104	59
50	55	105	59
51	55	106	59
52	55	107	58
53	56	108	58
54	56	109	58
55	57	110	58

The Rivergums - Cedar Woods Residential Development

Minimum Recommended Wall

Figure 4.3



N

Signs and symbols

- Road Source
- Surface
- Building
- Receiver
- Wall
- Change in Wall Height

15 December 2011

Length Scale 1:10000

0 50 100 200 300 400 m

Lloyd George Acoustics
by Terry George
terry@lgacoustics.com.au
(08) 9401 7770

The Rivergums - Cedar Woods Residential Development

LAeq,Day Noise Level Contours - With Recommended Noise Wall

Figure 4.4

Noise levels
LAeq,day dB

	< 55
55 <=	< 56
56 <=	< 57
57 <=	< 58
58 <=	< 59
59 <=	< 60
60 <=	

N

Signs and symbols

- Road Source
- Surface
- Building
- Wall
- Point receiver

15 December 2011

Length Scale 1:10000

0 50 100 200 300 400 m

Lloyd George Acoustics
by Terry George
terry@lgacoustics.com.au
(08) 9401 7770

5 ASSESSMENT

The objectives of the criteria are for noise at all houses to be no more than the *limit* and preferably no more than the *target*. Where the *target* is achieved, no further controls are required. Where the *limit* is achieved or noise levels are within the *margin* (between the *limit* and *target*), further controls are necessary.

With the proposed noise wall, the results indicate that there are some lots above the *limit* and some within the *margin*. These lots are identified in *Figure 5.1* and these 'affected' dwellings will require a notification on the lot title and the incorporation of Package A or B architectural treatments (refer *Appendix A*). Note that those dwellings requiring Package B could be reduced to Package A with the construction of a 1.2 metre high wall along Safety Bay Road, however this would be within the road reserve and require coordination with Main Roads Western Australia and has therefore been assumed not to exist.

6 CONCLUSION

The analysis has shown that to comply with the criteria of the *State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning* a combination of a noise barrier and architectural treatments will be required.

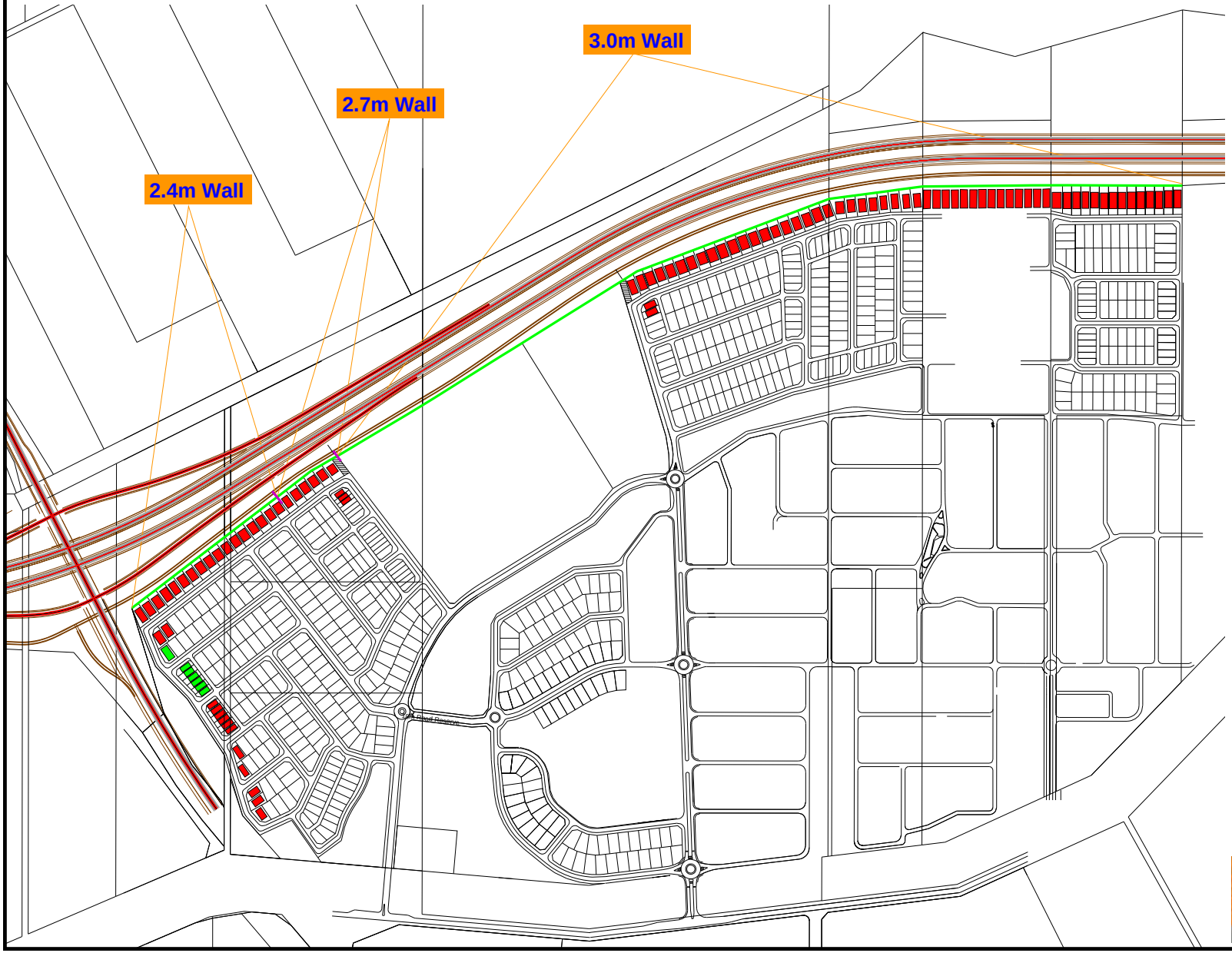
The extent of the mitigation treatments is shown on *Figure 5.1*.

Alternatives to the deemed to satisfy architectural treatments can be accepted if supported by an acoustic assessment addressing the specific house design. Additionally, if any of the lots requiring notification are to be double storey residence, these will also require an acoustic assessment. These assessments are to be undertaken by a suitably qualified acoustic consultant being a member of the Association of Australian Acoustical Consultants (AAAC).

Figure 5.1

The Rivergums - Cedar Woods Residential Development

Minimum Recommended Noise Mitigation



N

Signs and symbols

- Road Source
- Surface
- Wall
- Change in Wall Height
- Package A Treatment
- Package B Treatment

16 December 2011

Length Scale 1:10000

0 50 100 200 300 400 m

Lloyd George Acoustics
by Terry George
terry@lgacoustics.com.au
(08) 9401 7770

APPENDIX A

Deemed-to-Satisfy Construction Standards

Noise insulation – "Deemed to Comply" packages for residential development

The following "deemed-to-comply" Packages outline noise insulation measures that are designed to ensure that the indoor noise standards in the Policy are achieved for residential developments in areas where outdoor noise levels will exceed the *target* noise levels by up to 8 dB(A).

The deemed-to-comply specifications are intended to simplify compliance with the noise criteria, and the relevant Package should be required as a condition of development. However, this should not remove the option to pursue alternative measures or designs. Departures from the deemed-to-comply specifications need to be accompanied by acoustic certification from a competent person, to the effect that the development will achieve the requirements of the Policy.

Superior construction standards, such as those specified in the "deemed-to-comply" packages, are now becoming more prevalent in residential buildings; and do not significantly increase the cost of building. A similar standard of construction has been recommended by the Western Australian Planning Commission for new housing in areas forecast to be seriously affected by aircraft noise.[1] That recommendation followed a comprehensive assessment of the efficacy and costs of noise attenuation measures, taking into account the recent changes in industry building standards as well as changes to the *Building Code of Australia*.

Where transport noise levels are more than 8 dB above the noise *target*, i.e. 3 dB above the noise *limit*, or where noise-sensitive development other than residential is proposed, a Detailed Assessment should be prepared by a competent person. The report should specify the level of noise reduction required and the noise insulation measures needed to comply with the Policy. The approval may require that the construction drawings be checked for compliance with the Detailed Assessment, and that follow-up verification be carried out to certify compliance.

[1] Statement of Planning Policy No 5.1, *Land Use Planning in the Vicinity of Perth Airport* and the accompanying report on *Aircraft Noise Insulation for Residential Development in the Vicinity of Perth Airport,* February 2004.

Package A: Noise levels within the *margin*

The following noise insulation package is designed to meet the indoor noise standards for residential developments in areas where noise levels exceed the noise *target* but are within the *limit*.

Area type	Orientation	Package A measures
Indoors		
Bedrooms	Facing road/rail corridor	• 6mm (minimum) laminated glazing • Fixed, casement or awning windows with seals • No external doors • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning[2]
	Side-on to corridor	• 6mm (minimum) laminated glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Living and work areas[3]	Facing corridor	• 6mm (minimum) laminated glazing • Fixed, casement or awning windows with seals • 35mm (minimum) solid core external doors with acoustic seals[4] • Sliding doors must be fitted with acoustic seals • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning
	Side-on to corridor	• 6mm (minimum) laminated glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Other indoor areas	Any	No requirements
Outdoors		
Outdoor living area[5]	Facing corridor	• Minimum 2.0m high solid fence (e.g. Hardifence, pinelap, or Colorbond) • Picket fences are not acceptable
	Side-on to corridor	
	Away from corridor	No requirements

[2] See section on Mechanical ventilation/airconditioning for further details and requirements.
[3] These deemed-to-comply guidelines adopt the definitions of indoor spaces used in AS 2107-2000. A comparable description for bedrooms, living and work areas is that defined by the Building Code of Australia as a "habitable room". The Building Code of Australia may be referenced if greater clarity is needed. A living or work area can be taken to mean any "habitable room" other than a bedroom. Note that there are no noise insulation requirements for utility areas such as bathrooms. The Building Code of Australia describes these utility spaces as "non-habitable rooms".
[4] Glazing panels are acceptable in external doors facing the transport corridor. However these must meet the minimum glazing requirements.
[5] The Policy requires that at least one outdoor living area be reasonably protected from transport noise. The protected area should meet the minimum space requirements for outdoor living areas, as defined in the Residential Design Codes of Western Australia.

Package B: Noise within 3 dB above the *limit*

The following noise insulation package is designed to meet the indoor noise standards for residential developments in areas where transport noise levels exceed the noise *limit* but by no more than 3 dB (See Table 1 in the Policy).

Area type	Orientation	Package B measures
Indoors		
Bedrooms	Facing road/rail corridor	• 10mm (minimum) laminated glazing • Fixed, casement or awning windows with seals • No external doors • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning[6]
	Side-on to corridor	• 10mm (minimum) laminated glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Living and work areas[7]	Facing corridor	• 10mm (minimum) laminated glazing • Fixed, casement or awning windows with seals • 40mm (minimum) solid core external doors with acoustic seals[8] • Sliding doors must be fitted with acoustic seals • Closed eaves • No vents to outside walls/eaves • Mechanical ventilation/airconditioning
	Side-on to corridor	• 6mm (minimum) laminated glazing • Closed eaves • Mechanical ventilation/airconditioning
	Away from corridor	No requirements
Other indoor areas	Any	No requirements
Outdoors		
Outdoor living area[9]	Facing corridor	• Minimum 2.4m solid fence (e.g. brick, limestone or Hardifence) • Colorbond and picket fences are not acceptable
	Side-on to corridor	
	Away from corridor	No requirements

[6] See section on Mechanical ventilation/airconditioning for further details and requirements.

[7] These deemed-to-comply guidelines adopt the definitions of indoor spaces used in AS 2107-2000. A comparable description for bedrooms, living and work areas is that defined by the Building Code of Australia as a "habitable room". The Building Code of Australia may be referenced if greater clarity is needed. A living or work area can be taken to mean any "habitable room" other than a bedroom. Note that there are no noise insulation requirements for utility areas such as bathrooms. The Building Code of Australia describes these utility spaces as "non-habitable rooms".

[8] Glazing panels are acceptable in external doors facing the transport corridor. However these must meet the minimum glazing requirements.

[9] The Policy requires that at least one outdoor living area be reasonably protected from transport noise. The protected area should meet the minimum space requirements for outdoor living areas, as defined in the Residential Design Codes of Western Australia.

Mechanical ventilation/airconditioning

Where outdoor noise levels are above the "target", both Packages A and B require mechanical ventilation or airconditioning to ensure that windows can remain closed in order to achieve the indoor noise standards.

In implementing Packages A and B, the following need to be observed:

- evaporative airconditioning systems will not meet the requirements for Packages A and B because windows need to remain open;
- refrigerative airconditioning systems need to be designed to achieve fresh air ventilation requirements;
- air inlets need to be positioned facing away from the transport corridor where practicable;
- ductwork needs to be provided with adequate silencing to prevent noise intrusion.

Notification

Notifications on certificates of title and/or advice to prospective purchasers advising of the potential for noise impacts from road and rail corridors can be effective in warning people of the potential impacts of transport noise. Such advice can also bring to the attention of prospective developers the need and opportunities to reduce the impact of noise through sensitive design and construction of buildings and the location and/or screening of outdoor living areas.

Notification should be provided to prospective purchasers, and required as a condition of subdivision (including strata subdivision) for the purposes of noise-sensitive development or planning approval involving noise-sensitive development, where external noise levels are forecast or estimated to exceed the "target" criteria as defined by the Policy. In the case of subdivision and development, conditions of approval should include a requirement for registration of a notice on title, which is provided for under section 12A of the Town Planning and Development Act and section 70A of the Transfer of Land Act. An example of a suitable notice is given below.

Notice: This property is situated in the vicinity of a transport corridor, and is currently affected, or may in the future be affected, by transport noise. Further information about transport noise, including development restrictions and noise insulation requirements for noise-affected property, are available on request from the relevant local government offices.

APPENDIX B

Terminology

The following is an explanation of the terminology used throughout this report.

Decibel (dB)

The decibel is the unit that describes the sound pressure and sound power levels of a noise source. It is a logarithmic scale referenced to the threshold of hearing.

A-Weighting

An A-weighted noise level has been filtered in such a way as to represent the way in which the human ear perceives sound. This weighting reflects the fact that the human ear is not as sensitive to lower frequencies as it is to higher frequencies. An A-weighted sound level is described as L_A dB.

L_1

An L_1 level is the noise level which is exceeded for 1 per cent of the measurement period and is considered to represent the average of the maximum noise levels measured.

L_{10}

An L_{10} level is the noise level which is exceeded for 10 per cent of the measurement period and is considered to represent the "*intrusive*" noise level.

L_{90}

An L_{90} level is the noise level which is exceeded for 90 per cent of the measurement period and is considered to represent the "*background*" noise level.

L_{eq}

The L_{eq} level represents the average noise energy during a measurement period.

$L_{A10,18hour}$

The $L_{A10,18\ hour}$ level is the arithmetic average of the hourly L_{A10} levels between 6.00 am and midnight. The *CoRTN* algorithms were developed to calculate this parameter.

$L_{Aeq,24hour}$

The $L_{Aeq,24\ hour}$ level is the logarithmic average of the hourly L_{Aeq} levels for a full day (from midnight to midnight).

$L_{Aeq,8hour}$ / $L_{Aeq\ (Night)}$

The $L_{Aeq\ (Night)}$ level is the logarithmic average of the hourly L_{Aeq} levels from 10.00 pm to 6.00 am on the same day.

$L_{Aeq,16hour}$ / $L_{Aeq\ (Day)}$

The $L_{Aeq\ (Day)}$ level is the logarithmic average of the hourly L_{Aeq} levels from 6.00 am to 10.00 pm on the same day. This value is typically 1-3 dB less than the $L_{A10,18hour}$.

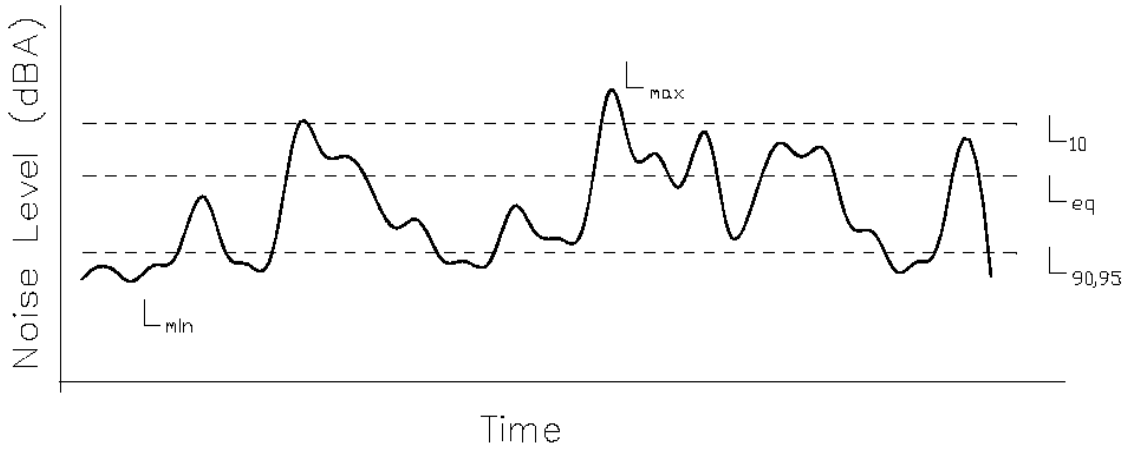
Satisfactory Design Sound Level

The level of noise that has been found to be acceptable by most people for the environment in question and also to be not intrusive.

Maximum Design Sound Level

The level of noise above which most people occupying the space start to become dissatisfied with the level of noise.

Chart of Noise Level Descriptors



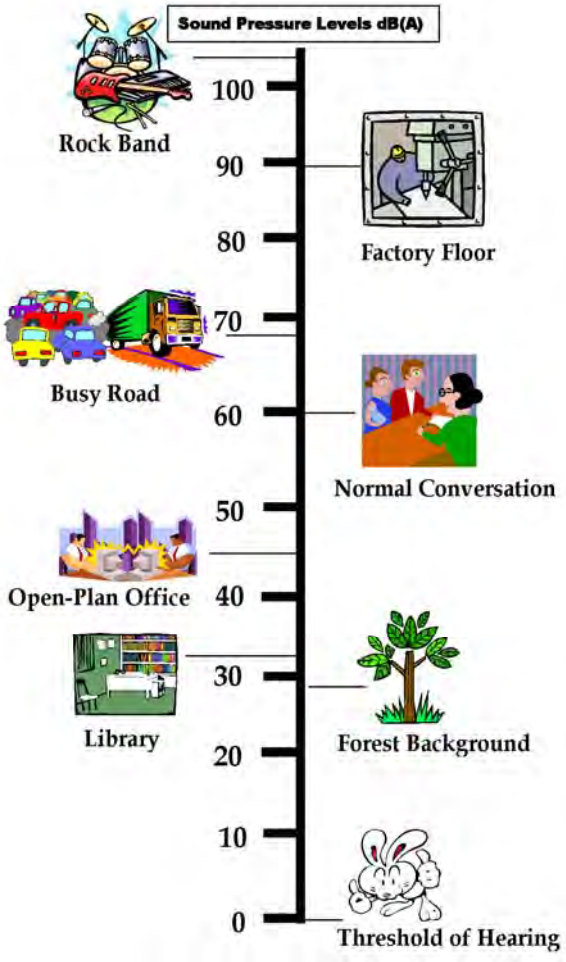
Austroads Vehicle Class

AUSTROADS Vehicle Classification System

Level 1 Length (indicative)	Level 2 Axles and Axle Groups		Level 3 Vehicle Type	AUSTROADS Classification		
Type	Axles	Groups	Typical Description	Class	Parameters	Typical Configuration
			LIGHT VEHICLES			
Short up to 5.5m		1 or 2	**Short** Sedan, Wagon, 4WD, Utility, Light Van, Bicycle, Motorcycle, etc	1	d(1) ≤ 3.2m and axles = 2	
	3, 4 or 5	3	**Short - Towing** Trailer, Caravan, Boat, etc	2	groups = 3 d(1) ≥ 2.1m, d(1) ≤ 3.2m, d(2) ≥ 2.1m and axles = 3, 4 or 5	
			HEAVY VEHICLES			
Medium 5.5m to 14.5m	2	2	**Two Axle Truck or Bus**	3	d(1) > 3.2m and axles = 2	
	3	2	**Three Axle Truck or Bus**	4	axles = 3 and groups = 2	
	> 3	2	**Four Axle Truck**	5	axles > 3 and groups = 2	
Long 11.5m to 19.0m	3	3	**Three Axle Articulated** Three axle articulated vehicle, or Rigid vehicle and trailer	6	d(1) > 3.2m, axles = 3 and groups = 3	
	4	> 2	**Four Axle Articulated** Four axle articulated vehicle, or Rigid vehicle and trailer	7	d(2) < 2.1m or d(1) < 2.1m or d(1) > 3.2m axles = 4 and groups > 2	
	5	> 2	**Five Axle Articulated** Five axle articulated vehicle, or Rigid vehicle and trailer	8	d(2) < 2.1m or d(1) < 2.1m or d(1) > 3.2m axles = 5 and groups > 2	
	≥ 6	> 2	**Six Axle Articulated** Six axle articulated vehicle, or Rigid vehicle and trailer	9	axles = 6 and groups > 2 or axles > 6 and groups = 3	
Medium Combination 17.5m to 36.5m	> 6	4	**B Double** B Double, or Heavy truck and trailer	10	groups = 4 and axles > 6	
	> 6	5 or 6	**Double Road Train** Double road train, or Medium articulated vehicle and one dog trailer (M.A.D.)	11	groups = 5 or 6 and axles > 6	
Large Combination Over 33.0m	> 6	> 6	**Triple Road Train** Triple road train, or Heavy truck and three trailers	12	groups > 6 and axles > 6	

Definitions: Group: Axle group, where adjacent axles are less than 2.1m apart
Groups: Number of axle groups
Axles: Number of axles (maximum axle spacing of 10.0m)
d(1): Distance between first and second axle
d(2): Distance between second and third axle

Typical Noise Levels



mainroads
WESTERN AUSTRALIA
ABN: 50 860 676 021

Enquiries: James McCallum on (08) 9323 4214
Our Ref: 04/10555-12 (D14#403139)
Your Ref: 28-50173-1

30 July, 2014

The Planning Group
Level 7
182 St George's Terrace
Perth WA 6000

ATTENTION: George Ashton

Dear George

MAIN ROADS COMMENTS – LOT 803 RIVERGUM BOULEVARD, BALDIVIS – WAPC REF 28-50173-1 – PROPOSED PRIMARY SCHOOL

I refer to the Western Australian Planning Commissions letter dated the 3rd of July, 2014 requesting Main Roads comment on the above proposed development.

As advised by the referring Department of Planning officer, and pursuant to Planning Bulletin 96, Main Roads hereby addresses its comments to you as the officer developing the Responsible Authority Report for submission to the Development Assessment Panel.

Main Roads would support the proposed development, subject to the following conditions being imposed and adhered to by the applicant/landowner:

1. No earthworks, structures or fixed components of development, permanent or otherwise, are to encroach into the Kwinana Freeway road reservation.

2. All stormwater drainage shall be contained on site and shall not discharged onto the Kwinana Freeway road reservation.

3. Existing ground levels on the boundary of Lot 803 Rivergum Boulevard and the Kwinana Freeway road reservation shall be maintained as existing.

4. The applicant/landowner shall be required to undertake the noise mitigation measures as outlined in the Noise Assessment developed by Lloyd George Acoustics, reference: 506377-08a to the satisfaction of Main Roads Western Australia to mitigate against the impact of vehicular noise generated by the function of Kwinana Freeway.

Advice to the Applicant/Landowner:

1. Any damage done to the existing verge and its vegetation, within the Kwinana Freeway road reservation, shall be made good at the full expense of the applicant.

2. If you are not in possession of the Noise Assessment 506377-08a, please contact the below mentioned officer who can supply you with a copy.

If you require any further assistance or would like to query the above information, please contact James McCallum on (08) 9323 4214. In reply would you please quote reference number 04/10555-12 (D14#403139).

Yours faithfully

Lang Fong

PLANNING INFORMATION MANAGER

Government of **Western Australia**
Development Assessment Panels

Form 1 - Responsible Authority Report

(Regulation 12)

Property Location:	75-79 (Lots 1027, 1026 & 1025) Orsino Boulevard NORTH COOGEE
Application Details:	52 Multiple Dwellings
DAP Name:	Metro South-West JDAP
Applicant:	McDonald Jones Architects
Owner:	Port Coogee Apartments Pty Ltd
LG Reference:	6017791, 6015026, 6015025
Responsible Authority:	City of Cockburn
Authorising Officer:	Don Bothwell Senior Planning Officer
Department of Planning File No:	DAP14/009
Report Date:	21 August 2014
Application Receipt Date:	04 August 2014
Application Process Days:	60 Days
Attachment(s):	1. Development Application Report 2. P.01 3. P.02 4. P.03 5. P.04 6. P.05 7. P.06 8. P.07

Recommendation:

That the Metro South-West JDAP resolves to:

Approve DAP Application DP/14/00576 and accompanying plans P.01, P.02, P.03, P.04, P.05, P.06 & P.07 in accordance with Clause 10.3 of the City of Cockburn Town Planning Scheme No. 3, subject to the following conditions:

Conditions

1. Prior to the lodgement of a Building Permit application for new buildings, the submission of a detailed landscape plan for assessment and approval by the City is required. The Landscape Plan shall include the following:-

   a) the location, number and type of proposed planting;
   b) the size of selected species at planting and maturity;
   c) those areas to be reticulated or irrigated;
   d) details of any common area lighting.

2. Landscaping is to be installed and reticulated in accordance with an approved detailed landscape plan prior to the occupation of the dwellings. Landscaped areas are to be maintained thereafter in good order to the satisfaction of the City.

3. The submission of a detailed material, colours and finishes schedule for the development, to be provided to the City's satisfaction prior to the lodgement of

a Building Permit application for new buildings. The details as agreed by the City are to be implemented and maintained in the development

4. All service areas and service related hardware, including antennae, satellite dishes and air-conditioning units, being suitably located away from public view and/or screened to the satisfaction of the City.

5. Prior to the lodgement of a Building Permit application for new buildings, arrangements being made to the satisfaction of the City for the pro-rata developer contributions towards those items listed in the City of Cockburn Town Planning Scheme No. 3 for Community Infrastructure (DCA 13).

6. Prior to the initial occupation of the dwellings hereby approved, the parking bays, driveways and points of ingress and egress shall be sealed, kerbed, drained and line marked in accordance with the approved plans to the satisfaction of the City.

7. The allocation of car parking bays to specific dwellings is to be reflected on any strata plan for the subject property to the City's satisfaction.

8. The required residential visitor parking bays shown on the approved plans shall be clearly delineated (marked, signed) on-site, available for use within the development free of cost for the bona fide visitors of the occupants of the dwellings the subject of this approval, for the life of the development, and reflected as such on any strata plan as part of the common property of the strata scheme. No by-law pursuant to the Strata Titles Act 1985 shall be made that assigns any exclusive use of the visitor parking bays to any strata lot.

9. Prior to lodgement of a Building Permit application for new buildings, details of the selected intercom system which will allow visiting vehicles to contact units within the development in order to gain access to the secured visitor parking bays shall be provided to the satisfaction of the City.

10. Bicycle parking bays are to be designed and installed to comply with Australian Standard 2890.3 within designated bicycle parking areas marked on the site plan. Details of the bicycle parking shall be submitted to the City for assessment and approval prior to the lodgement of a Building Permit application for new buildings.

11. Prior to the initial occupation of the dwellings hereby approved, the parking bays, driveways and points of ingress shall be sealed, kerbed, drained and line marked in accordance with the approved plans to the satisfaction of the City. Car parking and access driveways shall be designed, constructed and maintained to comply with AS2890.1 and provide for safe pedestrian movement, to the City's satisfaction.

12. Walls, fences and landscape areas are to be truncated within 1.5 metres of where they adjoin vehicle access points, where a driveway and/or parking bay meets a public street or limited in height to 0.75 metres.

13. All stormwater being contained and disposed of on-site to the satisfaction of the City.

14. The development site must be connected to the reticulated sewerage system of the Water Corporation before commencement of any use.

15. The premises must clearly display the street number/s.

16. Notification in the form of a memorial under Section 70A of the Transfer of Land Act 1893 as amended shall be lodged against the title and incorporated into the strata management plan advising of the potential impacts of noise associated with the operation of a vibrant local centre surrounding the site. The memorial(s) are to be lodged against the title prior to any subdivision or strata titling of the subject property.

17. Prior to the lodgement of a Building Permit application for new buildings**,** the Developer is to provide to the City's Health Service a report from a recognised acoustic consultant demonstrating that the design of the development and the location of plant within the development including air-conditioners, spas and similar equipment will not result in noise emissions exceeding those set out in the *Environmental Protection (Noise) Regulations 1997* (as amended) and the design of the development will result in acceptable indoor noise levels that meet the recommended design sound levels in Table 1 of AS/ANS 2107:2000 entitled "Acoustics – Recommended Design Sound Level and Reverberation Times for Building Interiors", particularly with regard to noise transmission between units and floors.

18. A final assessment of the completed development must be conducted by an acoustic consultant to certify that all recommendations made in the noise report(s) supporting the development application have been incorporated into the development. A report confirming compliance with the requirements must be provided prior to occupation of the development to the satisfaction of the City.

19. Earthworks over the site including batters shall be stabilised to prevent sand or dust blowing off the site, and appropriate measures shall be implemented within the time and in the manner directed by the City in the event that sand or dust is blown from the site.

20. If dust is detected at adjacent premises and is deemed a nuisance by an Environmental Health officer, then any process, equipment and/or activities that are causing the dust nuisance shall be stopped until the process, equipment or activity has been altered to prevent the dust to the satisfaction of the City.

21. A Construction Management Plan is to be submitted to and approved by the City prior to the lodgement of a Building Permit application for new buildings and all measures identified in the plan are to be implemented during the construction phase to the satisfaction of the City.

22. No building or construction related activities associated with this approval causing noise and/or inconvenience to neighbours and visitors to the Marina Village between the hours 7.00pm and 7.00am, Monday to Saturday, and not

at all on Sunday or Public Holidays (unless prior written approval of the City is issued).

23. Any damage during construction to the existing streetscape infrastructure (including hard and soft landscaping) adjacent to the subject site shall be rectified to the satisfaction of the City.

24. A streetscape infrastructure bond in respect of Condition 23 shall be lodged with the City prior to the issue of a Building Permit and held in trust until Condition 23 has been completed to the satisfaction of the City. The City may, for the purpose of giving effect to Condition 23, draw from the bond, whether from corpus or income or both, in payment of the reasonable costs of the City's officers', employees' and agent's time, and/or the costs of the contractors and subcontractors engaged by the City for such purpose, and to pay for the materials, equipment, hire of machinery and other costs involved in giving effect or partial effect to Condition 23.

25. Upon completion of construction, if Condition 23 has been complied with to the satisfaction of the City, the City shall on request from the bond applicant, pay back to the bond applicant (or the nominee appointed in writing by the bond applicant) the balance (if any) of corpus and income of the bond then standing to the credit of the City.

26. Provisions identified in the Waste Management Plan dated 12 August 2014 approved by the City, which include recycling measures and management of commercial and residential waste, are to be implemented and maintained thereafter to the satisfaction of the City.

Advice Notes

1. The application has been determined by the JDAP on the basis of the plans and information provided to City for assessment.

2. This is a Planning Approval only and does not remove the responsibility of the applicant/owner to comply with all relevant building, health and engineering requirements of the Council, or with any requirements of the City of Cockburn Town Planning Scheme No. 3. Prior to the commencement of any works associated with the development, a building permit is required.

3. In the event there are any questions regarding the requirements of this approval, or the planning controls applicable to the land and/or location, the City's Statutory Planning Services team should be consulted.

4. The development is to comply with the requirements of the National Construction Code. In this regard, it is recommended the City's Building Services team should be consulted prior to the commencement of working drawings.

5. With regards to Conditions 6, the parking bay/s, driveway/s and points of ingress and egress are to be designed in accordance with the Australian Standard for Offstreet Carparking (AS2890.1) and are to be constructed, drained and marked in accordance with the design and specifications certified by a suitably qualified practicing Engineer and are to be completed prior to

the development being occupied and thereafter maintained to the satisfaction of the City.

6. With regards to Condition 13, all stormwater drainage shall be designed in accordance with Australian Standard AS3500.

7. With regards to Condition 16, the memorial should state as follows:

   "This lot and dwelling is in the vicinity of a vibrant local centre and associated land uses including a marina. Residential amenity therefore may be affected by noise and other impacts from late night or early morning operations".

8. Outdoor lighting if required, particularly illuminating ground floor entries must be in accordance with the requirements of Australian Standard AS 4282-1997: 'Control of the Obtrusive of Outdoor Lighting'.

9. All toilets, ensuites and kitchen facilities in the development are to be provided with mechanical ventilation flued to the outside air, in accordance with the requirements of the Building Code of Australia, the *Sewerage (Lighting, Ventilation and Construction) Regulations 1971*, Australian Standard S1668.2-1991 "The use of mechanical ventilation for acceptable indoor air quality" and the *City of Cockburn Health Local Laws 2000*.

10. With regards to street numbering of this proposal, you are advised to contact the City's Strategic Planning team on 9411 3444 or email streetnumbers@cockburn.wa.gov.au to ensure that any street numbers used comply with the City's requirements. This should be done prior to any sales contracts being drawn up.

11. If the development the subject of this approval is not substantially commenced within a period of two (2) years, the approval shall lapse and be of no further effect.

12. Where an approval has so lapsed, no development shall be carried out without further approval having first being sought and obtained, unless the applicant has applied and obtained Development Assessment Panel approval to extend the approval term under regulation 17(1)(a) of the Development Assessment Panel Regulations 2011.

Background:

Property Address:		75-79 Orsino Boulevard, North Coogee
Zoning	MRS:	Urban
	TPS:	Development – Local Centre
Use Class:		Multiple Dwellings
Strategy Policy:		-
Development Scheme:		City of Cockburn Town Planning Scheme No. 3
Lot Size:		1700m^2
Existing Land Use:		Vacant
Value of Development:		$12.5 million

The subject site consists of a group of three (3) lots facing Orsino Boulevard, North Coogee. The site is located within an area known as the 'Marina Village' precinct which is zoned for Local Centre purposes under the Port Coogee Local Structure Plan (LSP). The site falls within "Site 2" of the Marina Village. The expectations for high quality, high density urban form are contained in the Built Form Codes (BFC's) for the Marina Village which include general and site specific building requirements. The BFC's have been adopted by Council as a Detailed Area Plan (DAP) for lots within this precinct. Vehicle access to the site has been restricted to Comet Lane at the rear of the lots to provide an attractive streetscape interface for pedestrians.

Details: outline of development application

The proposal can be described as follows:

- 52 apartments consisting of 22 single bedroom dwellings and 30 two (2) bedroom dwellings with dwellings sizes ranging from 51m^2 to 87m^2;
- Basement comprises 68 parking bays (61 residents & 7 visitors), car parking provided on the lower parking and upper parking floors screened from Orsino Boulevard and Comet Lane;
- Building is 5 stories at the highest point, stepping down to 4 stories at the lowest point. Roof terrace provided on the north wing of the building where additional storey drops off;
- Apartments are set around a central open air atrium, allowing for sufficient ventilation and exposure to natural light. Dual aspect design allows cross ventilation and solar access to all apartments;
- The Orsino Boulevard Elevation has been broken up, reducing the building bulk and presenting as separate buildings;
- Access to the upper level residential from main lobby via Orsino Boulevard or via split level secure car parking area. Clear entry point provides sense of address;
- All vehicle access gained from Comet Lane with two car park entries at opposite ends of the Comet Lane frontage;
- Comit Lane elevation comprises of a large mural at street level to be commissioned by an artist;
- Bicycle storage areas for visitors and residents;
- A mix of materials and finishes including timber screening, limestone block and render, perforated metal screening and white painted breeze block.

Legislation & policy:

Legislation

The legislative framework and policy base providing for the assessment and determination of the subject application is as follows:

- City of Cockburn Town Planning Scheme No. 3 (TPS3). The application is to be determined in accordance with the provisions of Part 10 of the Scheme (Procedure for Dealing with Applications);

- The LSP (Port Coogee Local Structure Plan) applicable to the land and location. The LSP details general planning considerations in the areas of:

land use, density of development in the case of residential land use, and anticipated built forms;

- The applicable DAP (Marina Village Built Form Codes). This document informs built form outcomes with provisions that are additional to, or represent a variation to the requirements of the R-Codes;

- The Residential Design Codes of Western Australia (R-Codes).

Local Policies

Local Planning Policy APD70 'Waste Management in Multiple Unit Developments' is applicable to this application. The policy provides guidance on how larger developments should plan for waste management and minimisation. The proposal complies with the relevant provisions of this policy and the Waste Management Plan provided with the application has been given in principle approval by the City's Manager of Waste Services.

Consultation:

Public Consultation

The proposal has not been the subject of public consultation. Consultation was not deemed necessary given general compliance with the planning controls that apply to the location and/or their intent. It is noted that the controls (the LSP and applicable DAP) have previously been the subject of community consultation.

Consultation with other Agencies or Consultants

Consultation with other agencies or consultants has not been necessary.

It should be noted that the application has been the subject of a comprehensive pre-lodgement process. Officers of the City's Statutory Planning team met with the project architects and landowners on several occasions as part of the Port Coogee Design Review Panel prior to receipt of the application. At these meetings, the merits of the proposal were discussed at length, with the plans and elevations evolving to those the subject of this application.

Planning assessment:

Zoning and Use

The site is located within the 'Development' zone and is affected by the Development Area 22 provisions of the TPS3 which require the adoption of an LSP and Design Guidelines and/or DAPs to guide subdivision and development. The Port Coogee Local Structure Plan indicates that the site is located within the Marina Village which corresponds to the 'Local Centre' zoning within TPS3. The Zoning Table in Clause 4 of TPS3 identifies 'Multiple Dwellings' as a "P" or permitted use.

Development

The Port Coogee Marina Village BFC's provide specific guidance on built form, sustainability, amenity, parking, access and servicing for all lots located within the Marina Village. The provisions of the BFC's render most of Part 6 of the R-Codes as it relates to Multiple Dwellings redundant in this precinct. The proposal generally satisfies the general and site specific provisions of the BFC's. The most relevant provisions are detailed below.

Dwelling Diversity

The proposal includes a number of types of dwelling types consistent with the BFC's including 22 single bedroom dwellings (42.3%) and 30 two bedroom dwellings (57.6%). This complies with the requirement that a development shall not be comprised of more than 60% of any one dwellings type. In addition, with a range of apartment sizes and types between 51m^2 and 87m^2, the development consists of over three (3) apartment types which meet the requirement outlined in the BFC's. Overall, the dwelling diversity ensures that a suitable range of housing product is made available in the Marina Village which is considered to bring diversity in residential population.

Design

The development proposes a contemporary design which is considered to be compatible with the village and consistent with the intent of the BFC's. A good mix of robust building materials has been selected and the colour palette is sympathetic to the coastal environment. One of the main design features of the proposal is the internal open-air atrium with significant landscape plantings allowing for cross ventilation and sun exposure deep into the building. As detailed previously in the report, the applicant was required to engage in a number of pre-application built form review meetings and the merits of the design were discussed and any issues refined.

Building Height

Development on these lots are required to have a minimum building height of 10m to Orsino Boulevard and is permitted to have a maximum building height of 17.3m above natural ground level. Only the roof potion of the proposed building exceeds the allowable 17.3m height limit which is considered an acceptable encroachment as per the site specific requirement of the BFC's. Although the roof area of five (5) storey component encroaches into the 17.3m height requirement, the roof top terrace to the four (4) storey section is under the allowable height limit. The separation of the design of the building into four main blocks as well as the use of contrasting building design features, finishes and textures is considered to break up the perception of building bulk, creating an interesting facade as viewed from Orsino Boulevard and Comet Lane.

Setbacks

A minimum setback of 2.5m and a maximum setback of 3.5m are permitted to the Orsino Boulevard frontage with a nil setback permitted to Comet Lane. The proposal seeks to comply with the requirement through averaging. Calculations of areas within and outside the front setback area have been shown shaded on the submitted plans. The staggered setbacks are considered to provide visual articulation as viewed from

Orsino Boulevard with landscaping and planter beds providing for an attractive streetscape. The proposal also takes advantage of the required nil setbacks to Comet Lane with nil setbacks proposed with the exception of a very small portion were Comet Lane is angled.

Parking and Access

All vehicle access to the site is provided from Comet Lane which accords with the direction provided in the site specific provisions of the BFC's. A requirement for a total of 56 car bays for the residents and 7 car bays for the visitors is generated by the proposal. A total of 61 car bays has been provided on-site for the residents with 34 car bays provided on the lower parking level and 27 car bays provided on the upper floor resulting in a 5 car bay surplus. In addition, a complaint 7 car bays have been provided for the development with 4 visitor bays provided on-site and 3 visitor car bays providing on-street. It is to be noted that the tandem bays have only been included as one car bay with the tandem bays providing a second car bay option for the two bedroom apartments. If the additional 16 car bays in tandem arrangement were included in the calculations, there would be a total of 72 car bays provided for the residents of the 52 units with an additional 7 car bays for visitors.

Sustainability

The development has incorporated a good level of passive solar design with the large internal open-air atrium with voids and landscape plantings allowing sun penetration and cross ventilation throughout the building. In addition, dual aspect apartments allow for cross ventilation and solar access. Clear glass balustrading has been used throughout the building to maximise the availability of natural light, including in the atrium. Although future development adjoining the site will limit access to direct northern sunlight, the building will have exposure to north-east and north-west sunlight.

Acoustics

No acoustic report was provided with the application as required by the BFC's. The City's Health Services however have reviewed the application and recommended that an acoustic report be provided as a condition of approval which would ensure that noise transmission between units and floor is in accordance with the relevant standards.

<u>R-Code Provisions</u>

The only relevant provision of the R-Codes is Part 6.4.6 'Utilities and Facilities' C6.1 which requires that enclosed, lockable storage area be provided for each dwelling. The design incorporates a store with a minimum area of $4m^2$ for each dwelling with the exception of the store room in front of car bay 26 which was slightly reduced in size in order to make car bay 27 meet the Australian Standards. The proposed storerooms are located on the lower parking level, upper parking level as well as off the balconies for some of the upper floor units which is considered an acceptable outcome.

Conclusion:

The proposal represents a high quality architectural response to the site which is considered aesthetically appealing, provides a good mix of robust materials and will contribute to an interesting and engaging streetscape to Orsino Boulevard and Comet Lane. The proposal generally satisfies the provisions of the general and site specific requirements of the BFC's for the Marina Village. The car parking for the site meets the rates outlined in the BFC's and respects the allowable building height of 17.3m. The design of the building ameliorates the impact of building bulk as viewed from the street and adjoining properties as it has been split into four sections with an open air atrium allowing excellent light penetration into the building and cross ventilation. It is therefore recommended the Metro South-West Joint Development Assessment Panel resolve to conditionally approve the development application in accordance with Clause 10.3 of the City's Town Planning Scheme No.3.

FIGURE 01 - STREET PERSPECTIVE FROM ORSINO BOULEVARD

LOTS 1025 -1027 ORSINO BOULEVARD, NORTH COOGEE
DEVELOPMENT APPLICATION REPORT
JULY 2014

CONTENTS

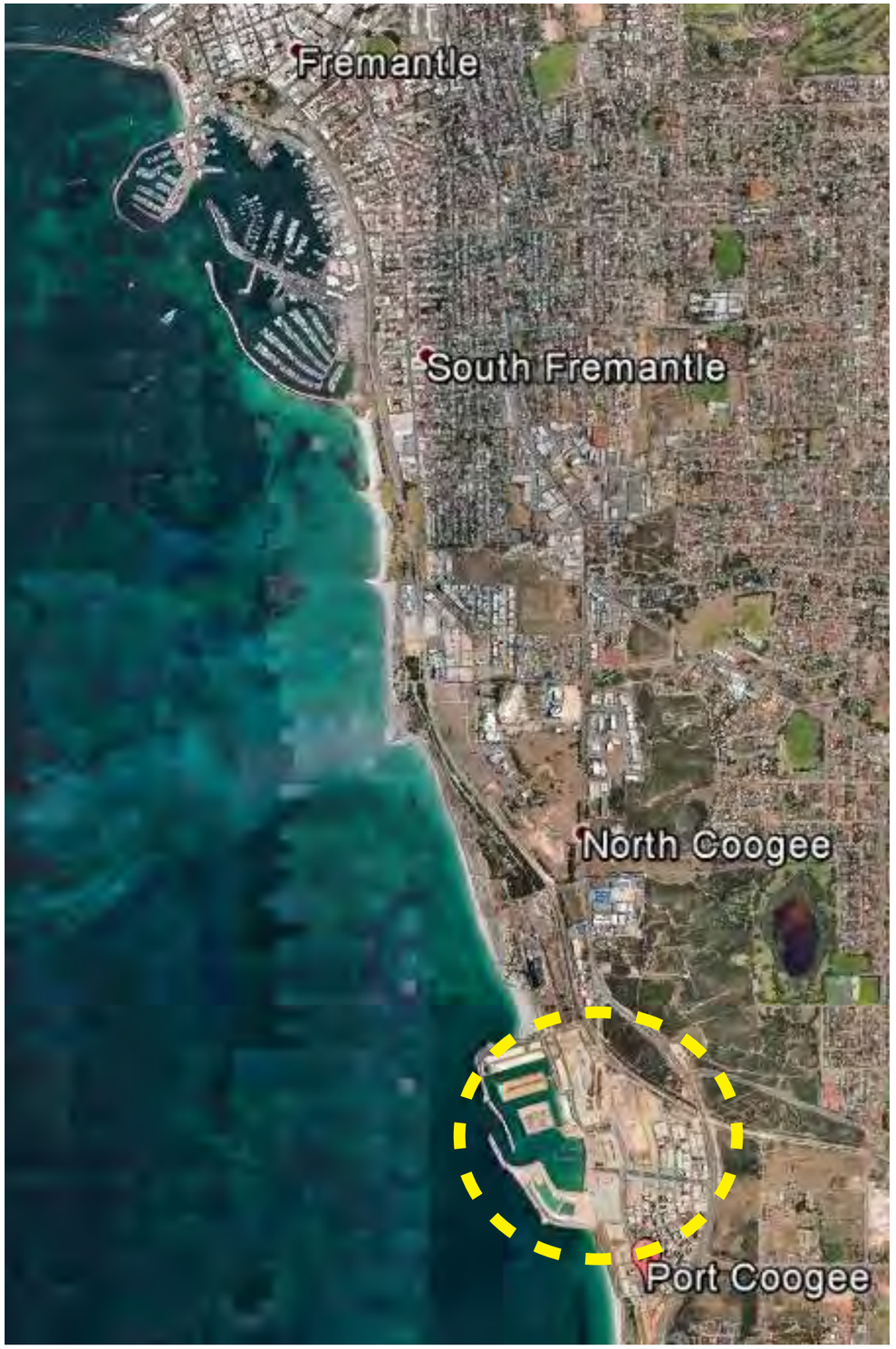


FIGURE 02 - LOCATION AND CONTEXT

1.0 INTRODUCTION

This report has been prepared by McDonald Jones Architects on behalf of Stirling Capital Pty Ltd in support of a planning application for fifty two residential apartments on lots 1025 -1027 Orsino Boulevard, North Coogee (see Figures 03-04).

The accompanying documents include architectural drawings P.01 – P.08.

This report has been prepared in support of an application to develop the subject site for residential purposes. This development comprises a range of 1 and 2 bedroom residential dwelling types, as well as associated on site car parking.

This report includes a description of the following matters:

- Site and locality
- Detailed explanation of the proposed development
- Key outcomes of the design
- Overview of the relevant planning and design issues; and
- Justification for the proposed development and proposed variations.

2.0 SITE & LOCALITY

The subject site comprises 3 lots totalling 1700 m^2 area and falls within the *Port Coogee Local Structure Plan*. The proposed development is to be contained within lots 1025-1027 as can be seen in Figure 4 to the right.

The site is bound on two sides by public roads with Orsino Boulevard providing the main street frontage to the development, while Comet Lane is a designated service laneway. This proposal addresses both streets.

The site falls in a east - west direction with levels of RL5.9 in the north-east corner, RL4.3 in the south-west corner. The cross fall on this site is a driving factor for the proposed split level parking. A survey of the subject site can be seen in Appendix item 11.5.

2.1 Surrounding Land uses

Lots 1025-1027 are within the Port Coogee Marina Village area. *The Port Coogee Marina Village Built Form Codes* therefore apply to this proposal. The surrounding land uses can be seen on the *Port Coogee Local Structure Plan (appendix A).* Surrounding uses include other residential developments immediately adjacent, with some nearby commercial property fronting Pantheon Avenue. Port Coogee also has local marina access. Adjacent lots 1015 and 1024 are currently vacant, as with a large number of the lots in Port Coogee Marina Village. As such, there are no adjoining or nearby buildings or indeed in the vicinity of the site at present.

Future surrounding land uses are anticipated to include residential development up to a height limit of 17.3m, of similar scale as this development.

FIGURE 03 - LOCATION AND CONTEXT

FIGURE 04 - LOCATION AND CONTEXT

3.0 DESCRIPTION OF PROPOSAL

The proposed new building contains 52 apartments spread over 5 stories at its tallest point, stepping down to 4 stories, with two levels of residential car parking at the base of the building. The proposal takes advantage of a nil permissible setback to Comet Lane.

The apartments comprise a mix of single bedroom (22) and two bedroom (30) apartments, incorporating one and two bathroom configurations ranging in size from 51m^2 to 87m^2 plus generous private balconies and stores.

Access to the upper level residential is proposed from the main lobby via Orsino Boulevard or via the split level secure car parking area. Within the building a centralised lift and two separate stairs provide vertical movement between the floors. The apartments are set around a central atrium, which is open to the sky allowing good natural ventilation to all apartments. Voids are cut into the circulation space between apartments where possible to allow sun light penetration throughout the proposal.

The Orsino Boulevard elevation is designed to be read as a series of smaller buildings rather than one large mass. At the ground floor are two apartments that have direct access off the street frontage. These units have been designed to provide a good pedestrian interface at the street level. Through material selection and landscaping elements, we have anticipated to create ground floor residential that addresses the street and provides an active frontage addressing the shared footpath.

Above the ground floor apartments the building is 3 stories to the North, rising to 4 stories to the south. The level 01 apartments are treated like a shadow line, emphasizing the stories above as a floating volume sitting on a plinth.

The car parking is concealed from Orsino Boulevard, avoiding any negative effects on the street frontage. Where the carpark fronts Comet Lane, screening has been provided to soften the appearance, whilst still allowing natural ventilation.

The Comet Lane elevation is characterised by a large mural at street level by a commissioned artist. This is adjacent to the rear pedestrian access via stair. It is proposed that other murals by the same artists continue within the development to continue the theme (see adjacent figure). Two car park entries occur at opposite ends of the comet lane frontage, and the bin store has been designed to be accessed directly from the street, as carpark access for the waste vehicle was problematic.

Above the laneway the proposal takes advantage of the nil permissible setback allowing the apartment balconies to provide some activation to the street. The elevation has been broken down to be read as a series of smaller buildings as was done on Orsino Boulevard. A deep recess between the north and south portions of the development allows for good ventilation as well as providing some depth relief from the nil setback.

A roof terrace is provided on the North wing of the building where the additional storey was dropped off.

Throughout the proposal landscaping elements have been provided wherever possible to soften the development and increase amenity of the residents.

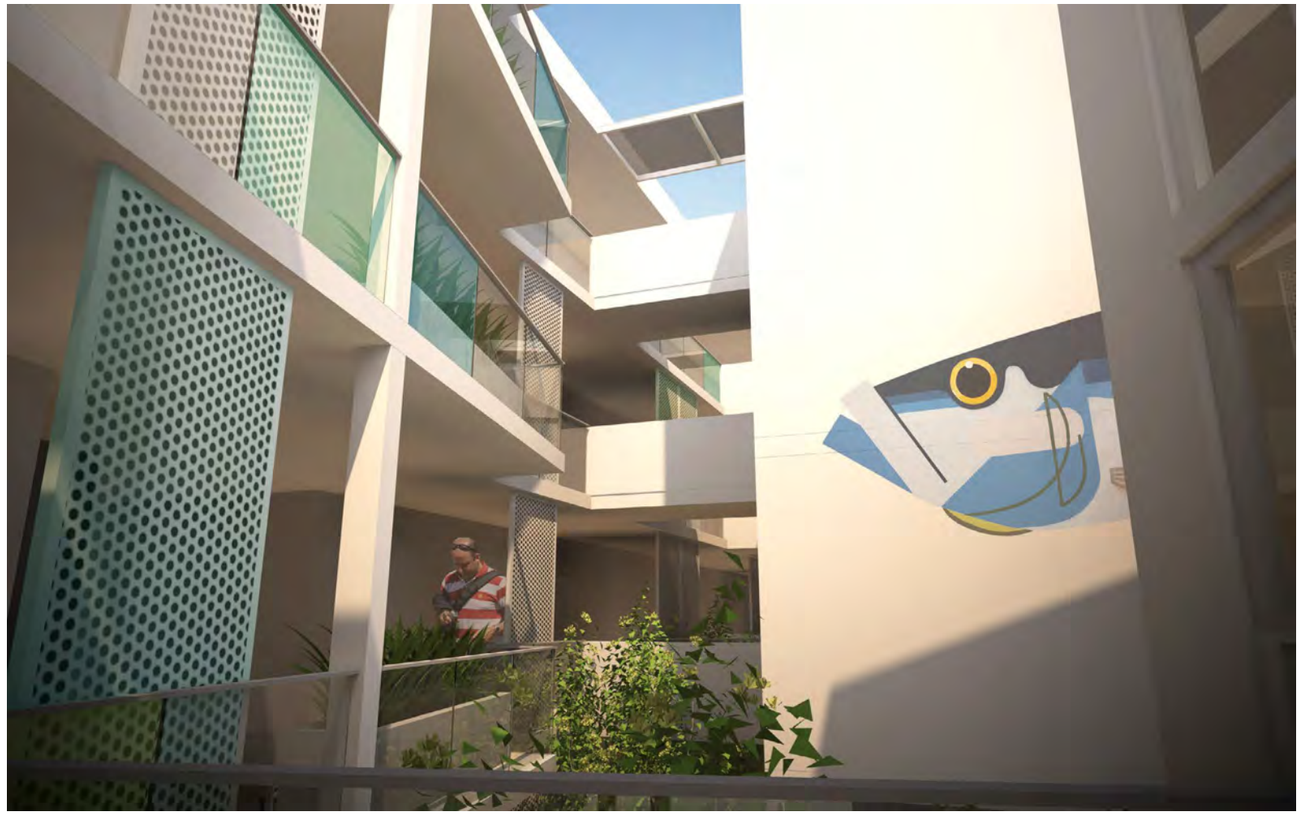


FIGURE 06 - INTERNAL PERSPECTIVE SHOWING ATRIUM AND ARTWORK

4.0 AMENITY

A high level of amenity is provided in this development for residential occupants and pedestrians in the form of:

- Generous internal open-air atrium with voids and landscape plantings to provide comfortable access to every apartment and allow sun penetration and cross ventilation deep into the building.
- Dual aspect apartments allow for good cross ventilation and solar access to every apartment
- Ground floor apartments fronting Orsino Boulevard interface directly with the street and provide a pedestrian friendly scale and materiality at street level.
- Emphasised entry point on Orsino Boulevard for upper level apartments gives a sense of address to the proposal.
- Well-designed apartment layouts with generous room dimensions and living areas as well as external stores.
- 176m2 roof terrace provided for resident use, with good solar access, and covered areas for all weather use.
- Bicycle storage areas for residents and visitors.
- Well defined access provided to secure residential car parks.

FIGURE 07 - STREET PERSPECTIVE FROM COMET LANE

FIGURE 08 - INTERNAL PERSPECTIVE FROM GROUND FLOOR APARTMENT

5.0 MATERIALS & TEXTURES

The proposal endeavours to provide a building that has a contemporary and creative aesthetic within the local character and as per the Port Coogee Marine Village Built Form Codes.

The main palette consists of rendered masonry in white, limestone and charcoal grey tones, charcoal-coloured steel elements and glazing frames, perforated metal screens, and feature white painted breezeblock and clear glass. Limestone block walls interface at the street level to Orsino Boulevard. Vertical steel screening is used for car parking screening, and feature timber screening is to be provided on the ground floor residential apartments.

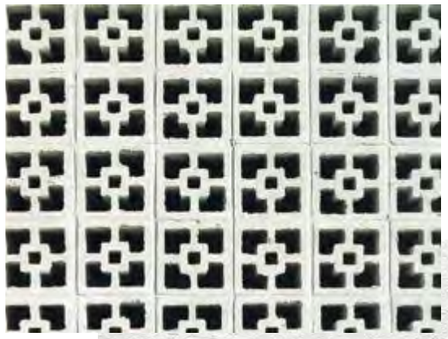
Clear glass balustrading is used throughout to maximise access to available light, including in the atrium.

The use of vernacular building elements such as breezeblock screens provide privacy to balcony areas and create textured and interesting building facades that will add a level of interest and sophistication to the development.

The chosen colour palette of painted wall elements uses a variation of early tones that draws upon similar tones found amongst the waterfront in the region.

FIGURE 09 - STREET PERSPECTIVE FROM ORSINO BOULEVARD

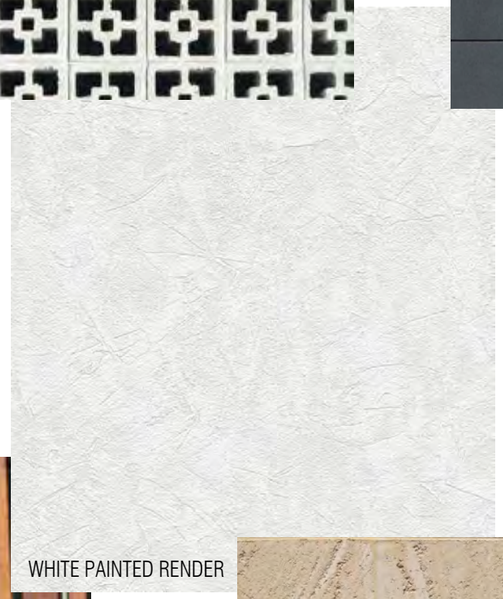
WHITE PAINTED BREEZE BLOCK



CHARCOAL TONED RENDER AND WINDOW FRAMES

WHITE PAINTED RENDER

PERFORATED METAL SCREENING



LIMESTONE BLOCK & LIMESTONE TONED RENDER

TIMBER SCREENING

6.0 KEY DESIGN OUTCOMES

The following is a summary of the key design outcomes of the proposal:

- Generous internal open-air atrium with voids and landscape plantings to provide comfortable access to every apartment and allow sun penetration and cross ventilation deep into the building.

- Dual aspect apartments allow for good cross ventilation and solar access to every apartment

- The residential car park is concealed beneath the bulk of the residential apartments and recessed from Orsino Boulevard. The carpark is hidden from view to Comet Lane by architectural screening elements. Car parking is provided above the minimum required bays.

- Numerous apartment ‘types’ have been carefully arranged to provide variation, depth and aesthetic interest to the building facades.

- Residential apartments are accessed via a private lift and from a secure lobby at ground floor or via stairway.

- Provision of vehicle access to the site is from Comet lane allowing Orsino Boulevard to be an uninterrupted frontage.

- All services, transformer, pumps and tanks are hidden from view. The bin storage areas are located to provide easy access for residential tenants, which allow collection from dedicated loading and collection areas.

Please refer to Appendix C for the full set of scaled drawings and perspectives

FIGURE 10 - STREET PERSPECTIVE FROM ORSINO BOULEVARD (02) SHOWING GROUND FLOOR RESIDENTIAL

7.0 PLANNING CONSIDERATIONS

The site is zoned “Development” in the City of Cockburn Town Planning Scheme No.3, which requires development and land use to be in accordance with an adopted structure plan. The relevant structure plan is Port Coogee Local Structure Plan. The approved local structure plan zones the site “Marina Village - Local Centre”

Within the Local Centre zone “Multiple Dwellings”, are permitted uses (“P” uses)

In the absence of an R-Code density being allocated to the site on the adopted local structure plan, the provisions of TPS3 prevail which specify that a residential density coding of R60 applies.

Relevant planning policies that apply to this development include:

- Port Coogee Marina Village Built Form Codes
- SPP4.2 - Activity Centres for Perth and Peel
- LPP APD58 – Residential Design Guidelines
- LPP APD70 - Waste Management for Multiple Unit Developments.

State Planning Policy 4.2 is relevant to the extent it reflects the State Government’s intent to encourage and consolidate residential and commercial development in activity centres and aims to promote:

- Diversity and intensity of activity within centres in compact urban form
- Increased residential densities
- Employment opportunities
- The efficient movement of people and goods to activity centres while encouraging alternative modes such as public transport.

The development has been designed with due regard to the relevant planning scheme; planning policies; the estate design guidelines and R-Code requirements.

The following sections summarise statutory compliance and request variations where necessary given the range of applicable provisions.

7.1 Vehicle Access & Parking

Car parking has been provide in accordance with the Port Coogee Marina Village Built Form Codes

Residential parking is provided over two basement levels accessed via Comet Lane.

Car parking for the development is summarised as follows:

Total car parking provided:
Residential Bays: 79 bays including 16 tandem bays
Visitor bays: 7 bays total 4 on site, 3 on street (1 per lot allocation)

Car parking requirements:
Residential Bays: 56
Visitor Bays: 7

This proposal therefore complies with the car parking requirements.

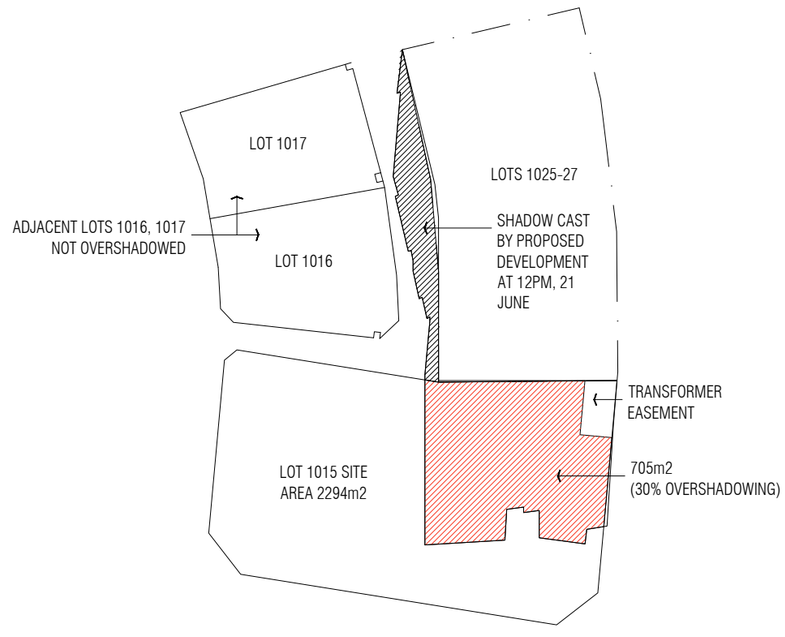


FIGURE 11 - SHADOW DIAGRAM

8.0 RESIDENTIAL DESIGN CODES of WESTERN AUSTRALIA

While the development has been designed with the Deemed-to-Comply criteria in mind, site and design constraints necessitate certain R-Code variations which are requested in accordance with the justification provided below. Other key compliances are also listed here.

8.1 Building Size:

Residential plot ratio of 2.25 is proposed which exceeds the plot ratio specified in Table 4 for the R60 density (i.e. 0.7). The proposed plot ratio is above the R160 zoning (2.0 plot ratio), and therefore needs to be assessed outside the scope of the R-Codes.

As mentioned earlier the R60 density is essentially a (TPS3) default density coding which applies because the adopted local structure plan does not specify any density coding for the Port Coogee Marina Village (local centre) site.

We submit that the building bulk and scale proposed is appropriate for this site as it responds to the desired urban nature of the local centre, and has received endorsement by the *Port Coogee Marina Village Design Review Panel*. Being a high quality design and one of the earlier developments in this block, we aspire to set a high quality benchmark that will be established to guide the future built form in the area. As mentioned, the proposal is consistent with the Port Coogee Marina Village Built Form Codes prepared for the site by the subdivider Australand.

8.2 Building Height:

The allowable height limit of 17.3M above natural ground is stipulated in the Detailed Area Plan. This proposal complies with the height limit, with the exception of the roof structure, which is considered a permissible encroachment in the Detailed Area Plan.

8.3 Street Setback:

The Orsino Boulevard setback is required to be 2.5 minimum and 3.5m maximum. This proposal seeks to comply with this requirement through setback averaging. Please refer to diagrams contained on the architectural drawings. A nil setback from Comet Lane is allowed in accordance with the Detailed Area Plan (REFER APPENDIX A). This proposal takes advantage of this.

As noted by the design review panel, the proposed setback to Orsino Boulevard was considered appropriate for the site, and was not of concern to the panel.

8.4 Open Space:

Using the definitions from the R-Codes, proposed open space comprises of 28% of the site area, which is less than 45% required for multiple dwellings for the (default) R60 density code. However, table 4 of the R-Codes stipulates that at R80 and above the open space requirements are to be stipulated in the Local Structure Plan. The open space by definition excludes a large portion of the proposed atrium as it is above 0.5m above natural ground, and it is therefore proposed that the open space that is usable by residents is above the figure provided. We propose that the open space provided is appropriate for this site.

8.5 Outdoor Living Areas:

The apartments are provided with generous balconies all of which meet or exceed area requirements stipulated under the R -Codes

8.6 Parking:

The car parking for this development is provided in accordance with the Port Coogee Marina Village Built Form Codes, rather than the R-Codes. The car parking calculations and data is provided on the architectural drawings, and is provided in excess of the required amount.

8.7 Overshadowing:

The shadow of the development cast at midday on 21 June overshadows the adjacent lot 1015 by 30% of the lot area. This is considered acceptable as the adjacent lot does not have a density coding, therefore reverting back to the default zoning of R60. Under the R-Codes R60 requirements up to 50% of the site is allowed to be overshadowed at 12pm, 21 June. This proposal at 30% overshadowing, complies with this requirement.

8.8 Dwelling Size:

The development incorporates 22 one bedroom apartments and 30 two bedroom apartments for a total of 52 apartments. 22 single bedroom apartments is below the maximum of 50% required in the R Codes (42%). The development maximises housing diversity and affordability through incorporating a wide range of different unit configurations including the single bedroom apartments. The mix of apartment types proposed is in response to market demand and is seen as appropriate for a ‘Local Centre’ typology.

9.0 ADDITIONAL CONSIDERATIONS

9.1 Waste Management:

Please refer to Appendix D Waste Management Plan provided by Encycle.
In brief: 18 waste and 18 recycling bins are proposed to be serviced directly from the street via the rear loading garbage truck. Due to the carpark arrangement access is not possible to the basement, as there is insufficient space to turn the truck around and through access is not achievable. To solve this issue and to avoid bins being stored directly on Comet Lane (outside the site boundaries) a bin store was provided at street level that shall be opened on collection day. Access would be via panel-lift style door with a 3.0m opening to allow for easy manoeuvering of the bins to the truck. This was the chosen option as the space required to align the bins for verge collection, would impact negatively on the amenity and access of Comet Lane.

9.2 Storm water:

Storm water for the development will be disposed of via soakwells on-site to the satisfaction of the City, the detailed calculations of which will be provided with the building permit application. Ground conditions comprising of clean sand fill combined with good separation to groundwater indicate an “A” site classification can be expected.

9.3 Landscaping:

Indicative landscaping is shown on the architectural plans with more detailed information provided on the landscaping plans (refer appendix E).

FIGURE 12 - STREET PERSPECTIVE FROM COMET LANE

10.0 CONCLUSION

The residential development proposed on Lots 1025-27 incorporates high quality building design with emphasis on user amentity, cross ventilation and solar access. Careful planning, and facade articulation has been provided to facilitate development of a vibrant and attractive residential building, aiming to provide exemplary residential development within the area.

The development will provide a range residential living opportunities in response to market demand in a multilevel architecturally designed building developed on this site.

The development has the following benefits:

- Generous internal open-air atrium with voids and landscape plantings to provide comfortable access to every apartment and allow sun penetration and cross ventilation deep into the building.
- Prioritizes ventilation and solar access as primary design principals, increasing amenity for the residents.
- Provides an attractive modern residential building, that references the proposed materiality if the Marina Village.
- Provides above the required car parks for the development
- Dual aspect apartments allow for good cross ventilation and solar access to every apartment
- The residential car park is concealed beneath the bulk of the residential apartments and recessed from Orsino Boulevard. The carpark is hidden from view to Comet Lane by architectural screening elements. Car parking is provided above the minimum required bays.
- Public art integrated in the Comet Lane facade, and also in communal areas which can be viewed by passers by and residents.

The proposal largely complies with the planning objectives for the zone, relevant state/local planning policy and delivers social, economic and environmental benefits to the community.

This proposal has received endorsement of the Port Coogee Marina Village Design Review Panel.

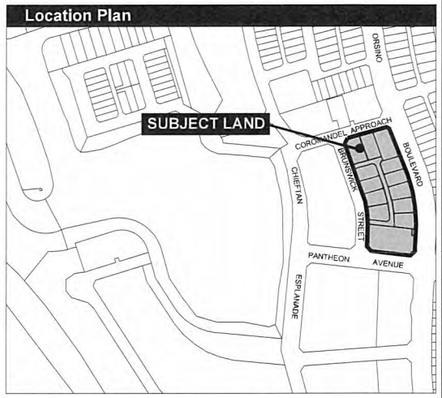
Approval is therefore respectfully requested.

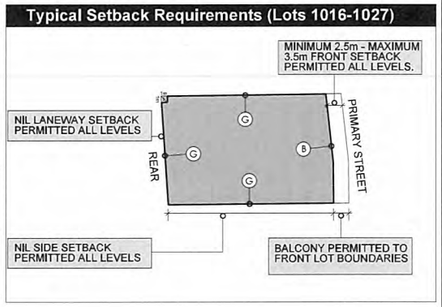
11.2 APPENDIX A - DETAILED AREA PLAN

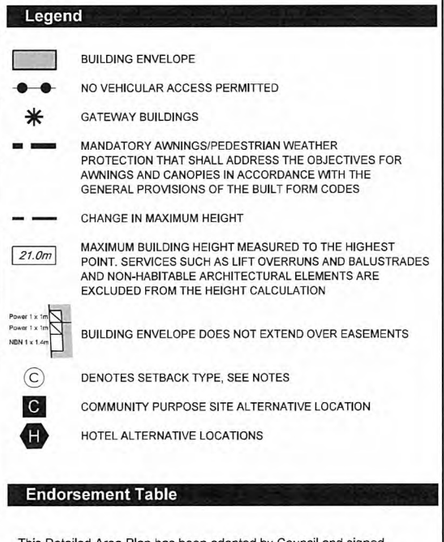
Detailed Area Plan – Site Specific Building Requirements

This Detailed Area Plan (DAP) replaces the Site Specific Building Requirements of the Port Coogee Marina Village Built Form Codes in relation to Site 2 only. All other provisions of the Port Coogee Marina Village Built Form Codes apply to the land the subject of this DAP (Lots 1015 to 1027).

Land Uses			
Ground Floor:	Pantheon Avenue:	Commercial/Retail. A non residential use is mandatory at ground level	
	Orsino Boulevard:	Commercial/Retail/Residential	
	Coromandel Approach/Brunswick Street:	Commercial/Residential	
Level 1:	All streets	Commercial/Residential	
Level 2 and above:	All streets	Residential	
Setbacks		**Type**	*(Typical street setback illustration reference to Built Form Codes)*
Basement:	All boundaries:	-	Nil permitted
Ground Floor/Level 1/ Level 2:	Pantheon Avenue:	C	Nil required.
	Orsino Boulevard/Coromandel Approach/Brunswick Street:	B	2.5m minimum / 3.5m maximum. Note: nil setback permitted to Lot 1015 Orsino Boulevard frontage as indicated on DAP.
	Lot side boundaries	G	Nil permitted
	Internal Laneway/Access Road	G	Nil permitted
Level 3 and above:	Pantheon Avenue	C	Nil minimum / 3.0m maximum
	Orsino Boulevard/Coromandel Approach/Brunswick Street	B	2.5m minimum / 3.5m maximum
	Lot side boundaries	G	Nil permitted
	Internal Laneway/Access Road	G	Nil permitted
Projections:	Balconies and architectural elements may extend to the lot boundary. On commercial and retail frontages, awnings and canopies at ground level may extend beyond the boundary by a maximum of 3.0m or to within 0.5m from the back of adjacent kerb.		
Height			
Overall:	Lots 1015, 1020-1022: 21.0m maximum height. Lots 1016-1019 & 1023-1027: 17.3m maximum height. Development fronting Orsino Boulevard is required to be a minimum of three storeys.		
Minimum floor level height to Pantheon Avenue:	Ground to first floor:	4.0m minimum	
	Top of Podium Parapet (Level 1):	8.0m-10.0m [measured from finished pavement level]	
	Top of Podium Parapet (Level 2):	11.5m-13.5m [measured from finished pavement level]	
Wind	All designs are subject to wind assessment in accordance with the Wind General Provision as detailed within the Built Form Codes.		
Design Elements	Each dwelling shall be provided with a minimum of one balcony.		
Gateway Building (Lot 1015)	Built form to corners noted as 'gateway buildings' shall be designed with consideration to framing the street via setback, height, mass and detail elements, in accordance with the Icon and Gateway Building General Provisions as detailed within the Built Form Codes.		
Hotel Site (Lot 1015)	This site has been allocated as a possible location for the required hotel under the Port Coogee Local Structure Plan.		
Community Purpose Site (Lot 1015)	This site has been allocated as a possible location for the community purpose use required by the Port Coogee Local Structure Plan.		
Vehicular Access	All lots shall obtain vehicle access via the laneway. No vehicular access is permitted to lots via Orsino Boulevard, Pantheon Avenue, Coromandel Approach or Brunswick Street.		
Parking	A total of 18 on-street parking bays are available for inclusion in the calculation of visitor parking provided for multiple dwellings on Lots 1015-1027. The 18 on-street parking bays are allocated specifically as provided below: - Lots 1016 to 1027: 1 on-street parking bay per lot for visitor parking for multiple dwellings. - Lot 1015: 6 on-street parking bays for visitor parking for multiple dwellings.		
Fencing	Orsino Boulevard/Coromandel Approach/Brunswick Street:	Type 1/Type 2 (*Refer to Built Form Codes for typical fencing configuration*)	
	Pantheon Avenue:	No fencing permitted other than Type 3 to service areas only.	
	Laneways/Internal Access Roads:	Type 3 to service areas only/Type 4	







Endorsement Table

This Detailed Area Plan has been adopted by Council and signed by the Principal Planner:

Principal Planner _____

Date 29.11.2011

Site Specific Building Requirements Detailed Area Plan - Marina Village (Lots 1015-1027)

PORT COOGEE

AN AUSTRALAND PROJECT

TAYLOR BURRELL BARNETT

plan: 90/057/210G
date: 18/10/2011
projection: PCG 94
designed: MW
checked: SD
drawn: TB
scale: 1:1000@A3
0 10 20m

Taylor Burrell Barnett Town Planning & Design
187 Roberts Road Subiaco Western Australia 6008
p: (08) 9382 2911 f: (08) 9382 4266 e: admin@tbbplanning.com.au

11.1 APPENDIX B - LOCAL STRUCTURE PLAN

PORT COOGEE

LEGEND

TPS NO.3 ZONES

- RESIDENTIAL R20
- RESIDENTIAL R25
- RESIDENTIAL R30
- RESIDENTIAL R35
- RESIDENTIAL R40
- RESIDENTIAL R50
- RESIDENTIAL R60
- RESIDENTIAL R80
- MARINA VILLAGE (Local Centre)

TPS NO.3 RESERVES

- PARKS AND RECREATION

MRS RESERVES

- PARKS AND RECREATION
- DUP FOR REGIONAL PEDESTRIANS / CYCLISTS
- DUP
- BOARDWALK
- 400m WALKABLE CATCHMENT
- ADDITIONAL USE SITE
- COMMUNITY PURPOSE SITE POTENTIAL ALTERNATIVE LOCATION
- ICON BUILDING
- HOTEL - ALTERNATIVE LOCATION
- PUBLIC ACCESS LINKS (form and location to be agreed with City of Cockburn)

Note : Footpaths to be provided along one side of every road and on opposite side of road to DUP, where DUP is provided.

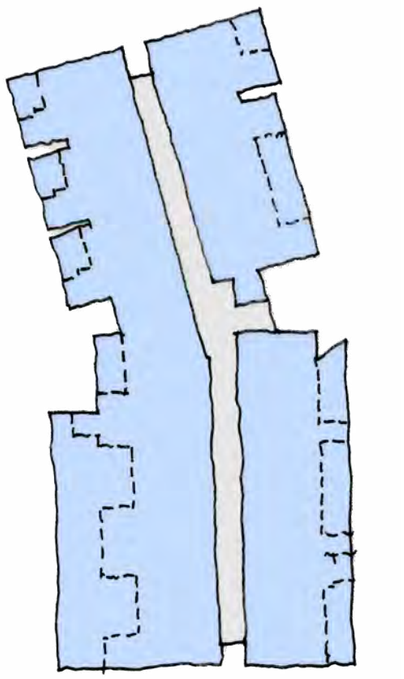
0 50 100 200 300 400m

CITY OF COCKBURN
STRUCTURE PLAN
This Structure Plan was ~~adopted~~ (orig) by Council on 11/8/05
Signed _____
DIRECTOR OF PLANNING & DEVELOPMENT
File No: .....
This Structure Plan was endorsed by the ~~Western Australian Planning Commission~~ State Administrative Tribunal on 20/5/10
Signed _____
DIRECTOR OF PLANNING & DEVELOPMENT

Revised Local Structure Plan

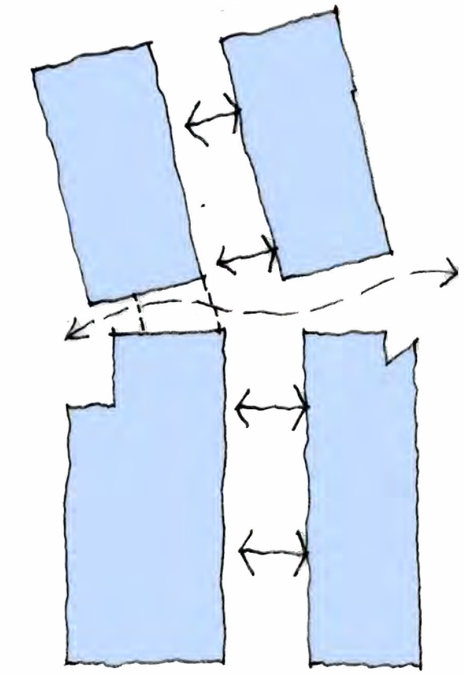
Figure No.9

11.2 APPENDIX B - ARCHITECTURAL DRAWINGS



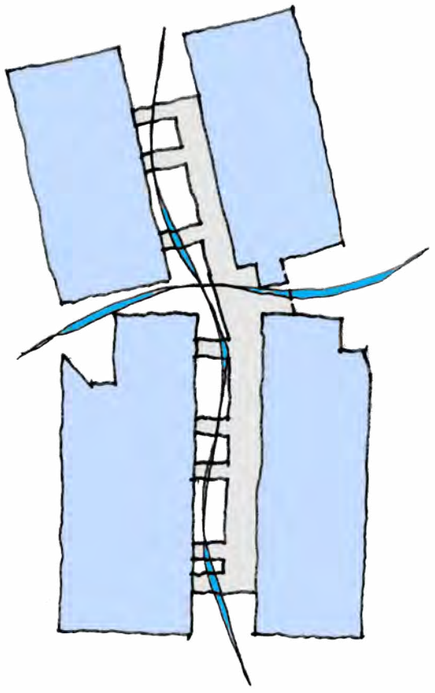
1

PREVIOUS DESIGN
LACKED CROSS VENTILATION
AND ACCESS TO NATURAL
LIGHT



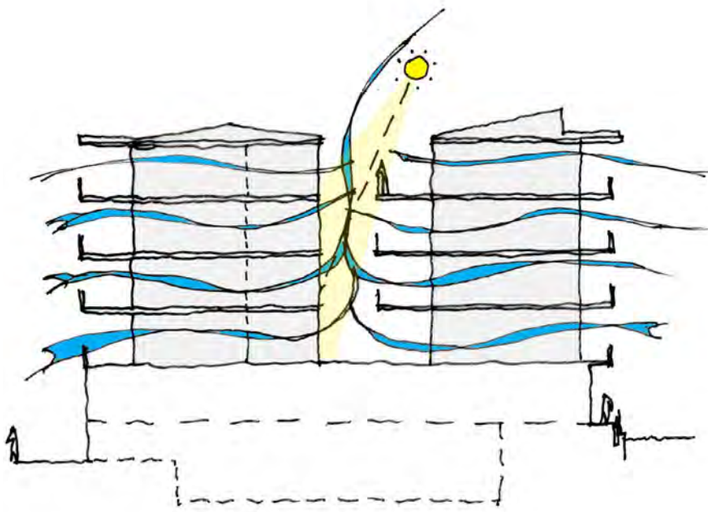
2

WINGS OF THE PLAN
WERE PULLED APART OPENING
UP A CENTRAL ATRIUM SPACE
OPEN TO THE AIR AND WITH-
OUT A FULL ROOF



3

LIGHT WELL VOIDS WERE
PUNCHED INTO THE
CIRCULATION SPACE
ALLOWING GOOD SOLAR
ACCESS. EACH APARTMENT IS
NOW DUAL ASPECT ALLOWING
CROSS VENTILATION



4

SECTIONAL DIAGRAM SHOWING
NATURAL VENTILATION AND
SOLAR ACCESS VIA CENTRAL
ATRIUM

IMAGE 01- DIAGRAM OF DESIGN STRATEGY

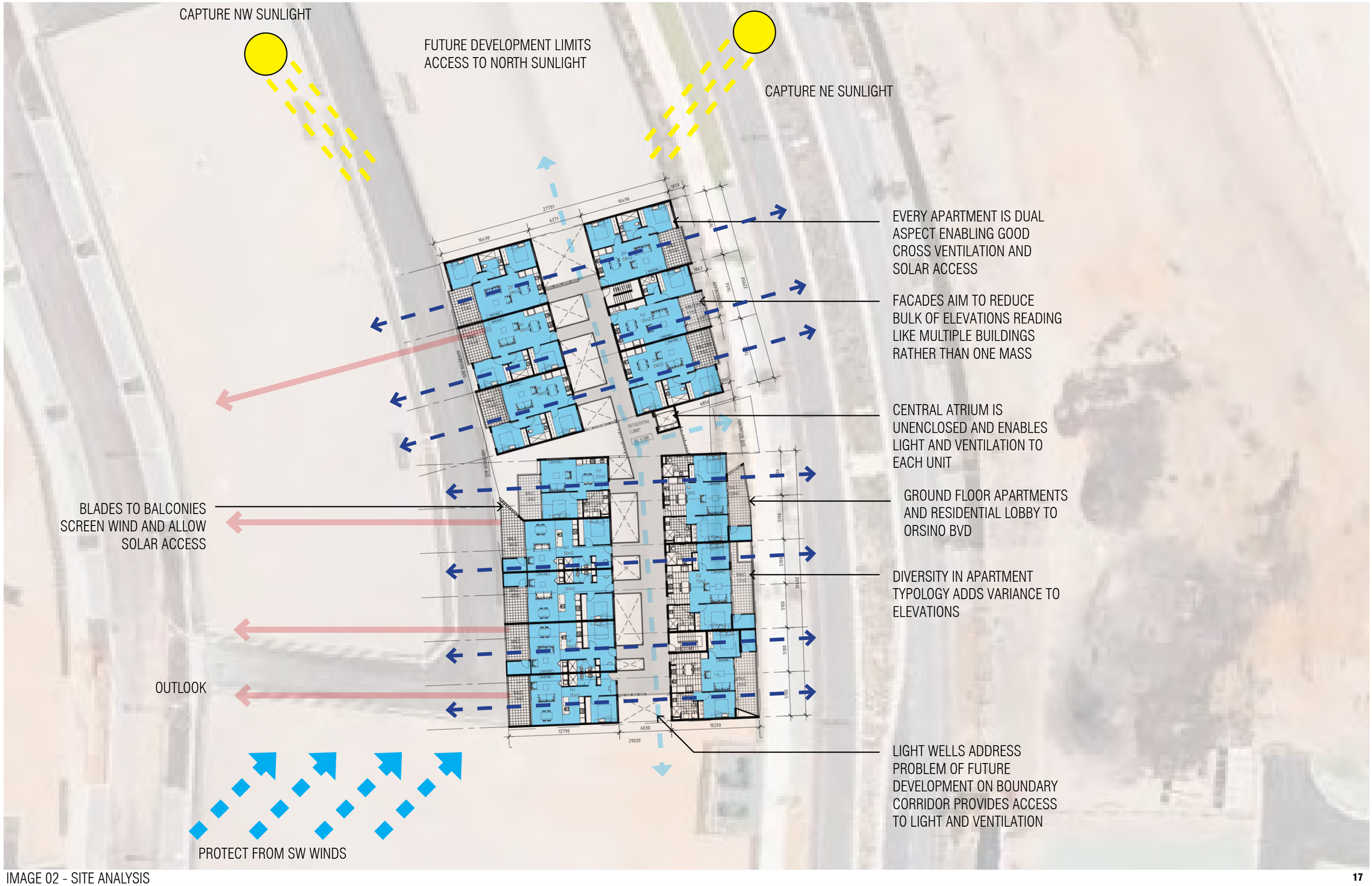
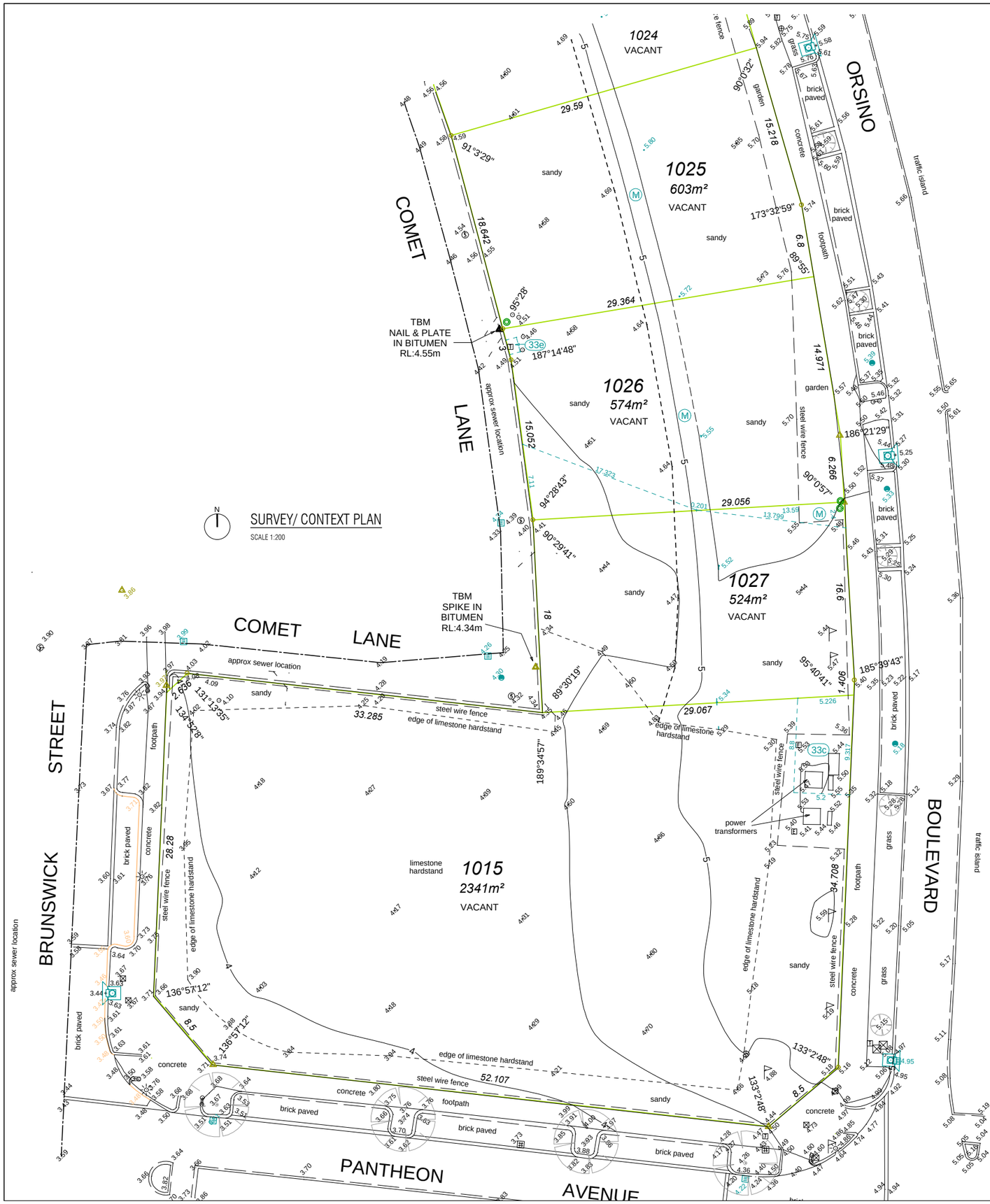


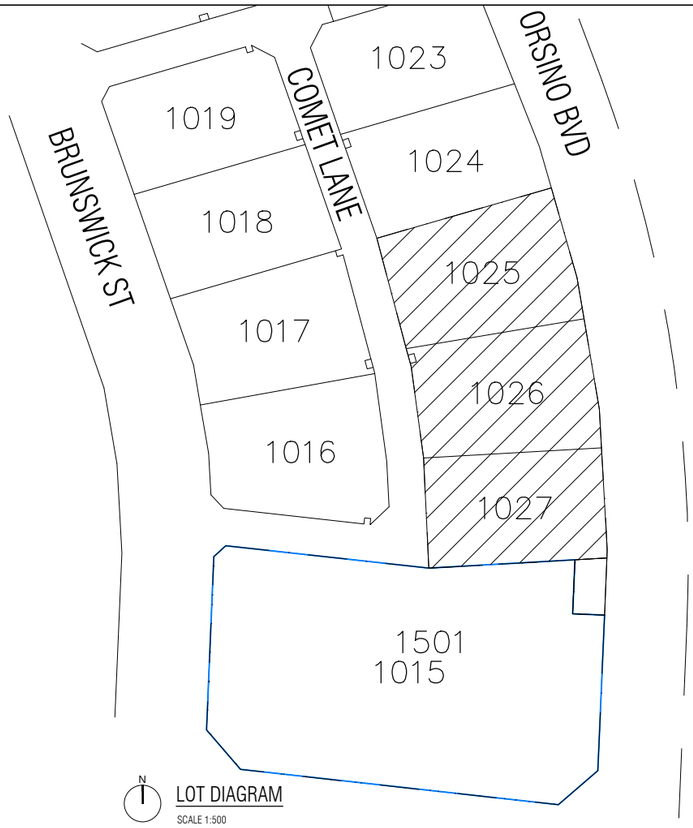
IMAGE 02 - SITE ANALYSIS

MJA



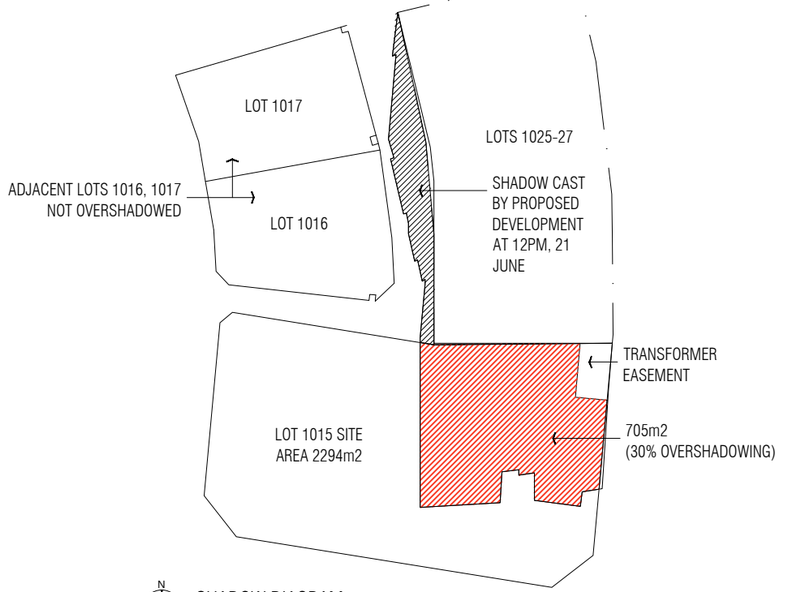
SURVEY/ CONTEXT PLAN

SCALE 1:200



LOT DIAGRAM

SCALE 1:500



SHADOW DIAGRAM

SCALE 1:500

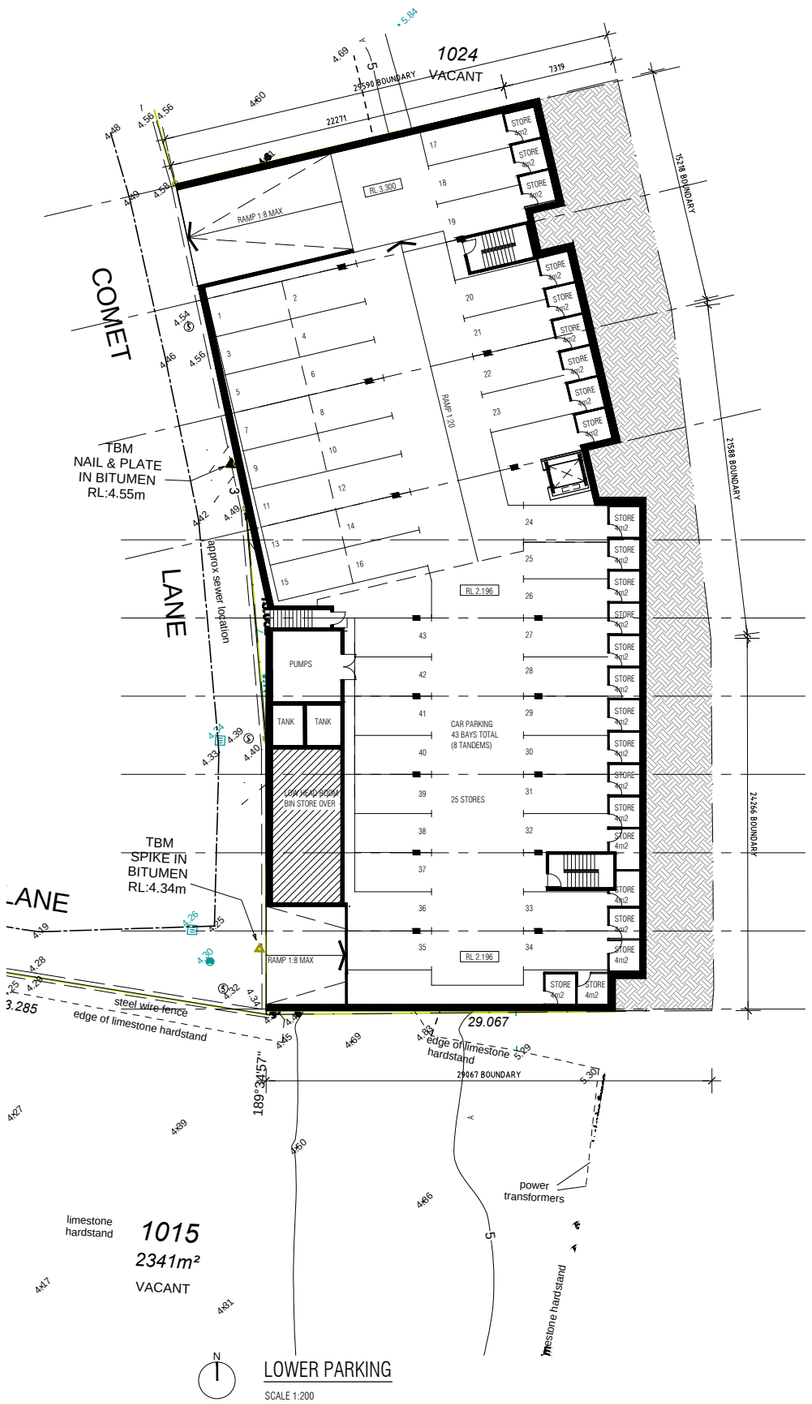
NO.	DATE:	AMENDMENT:

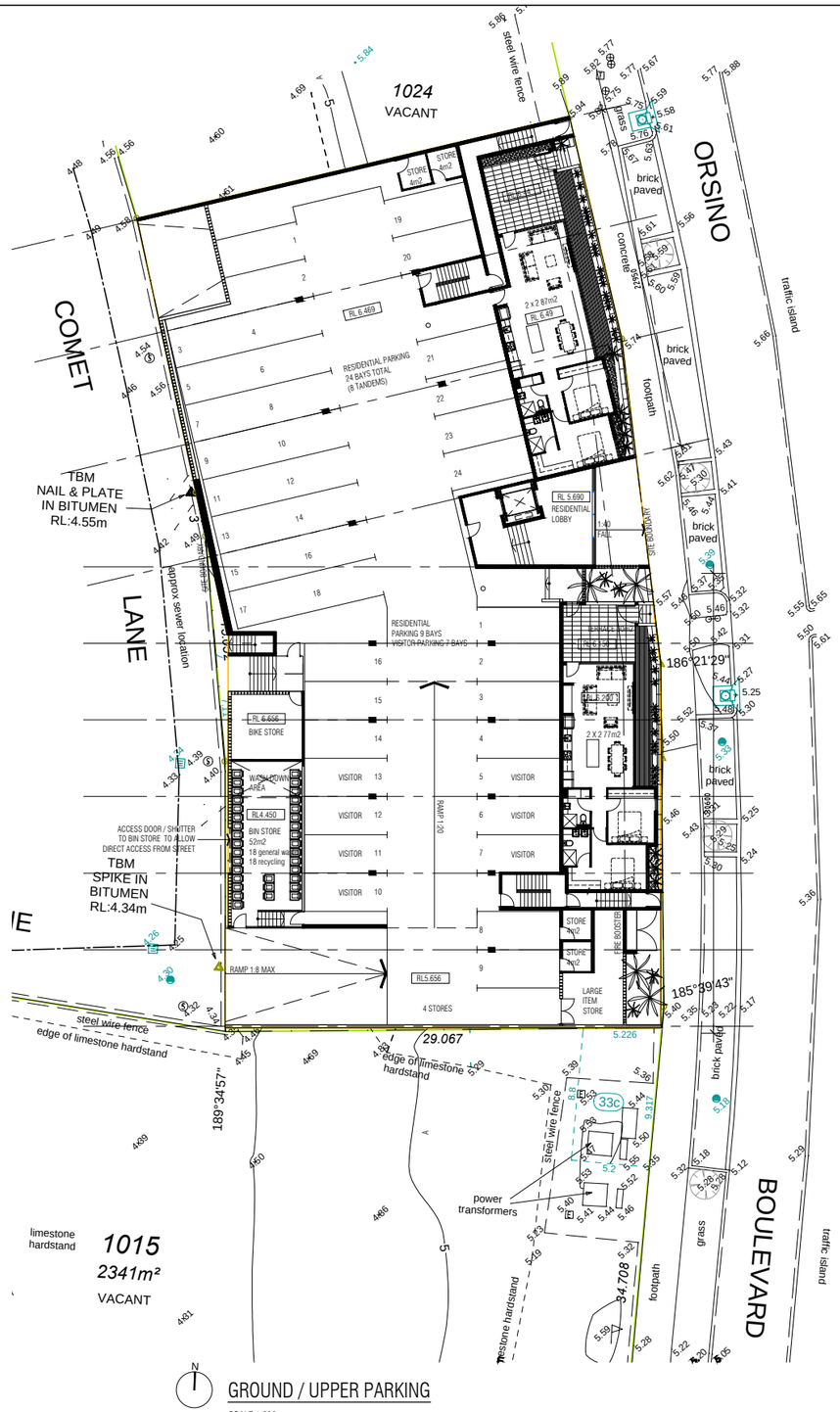
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

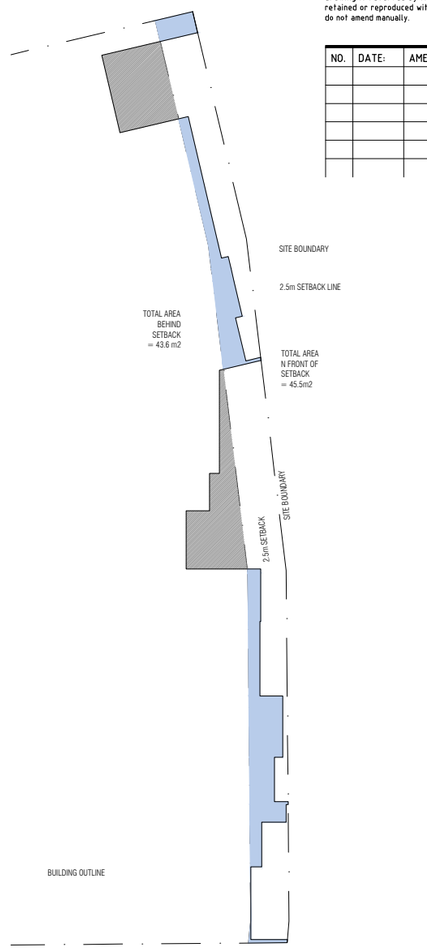
MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

SITE CONTEXT / SURVEY

SCALE: 1:200@A1	DRAWING No. P.01	REV A
DATE: 04.07.2014		
DRAWN: OB CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		







NO.	DATE:	AMENDMENT:

MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

PLANS

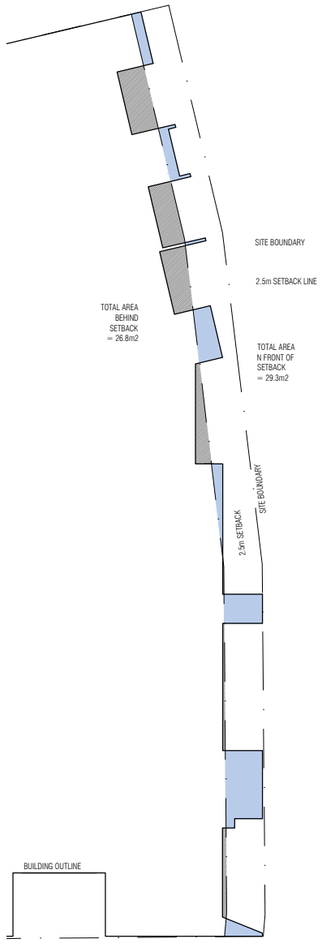
SCALE:	DRAWING No.	REV
1:200@A1	P.02	A
DATE: 04.07.2014		
DRAWN: OB CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:

N

FLOOR 1

SCALE 1:200@A1 /1:400@A3



N

SETBACK AVERAGING - ORSINO BVD LEVEL 01

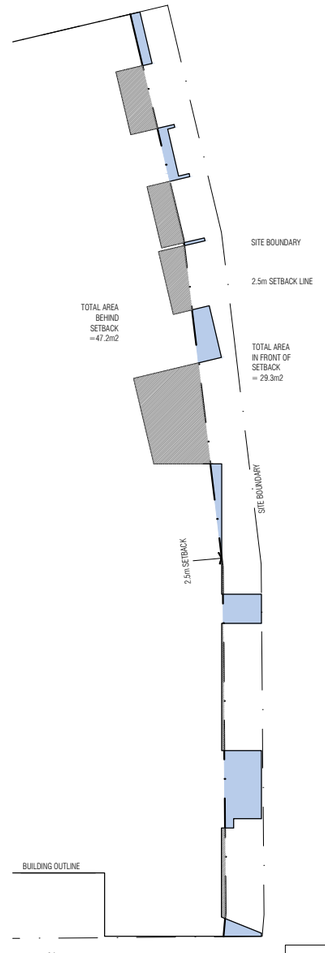
SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3 m2
TOTAL AREA BEHIND SETBACK = 26.8 m2
(2.5m2 IN FRONT OF SETBACK)

N

FLOOR 2/3

SCALE 1:200



N

SETBACK AVERAGING - ORSINO BVD LEVEL 2,3

SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3m2
TOTAL AREA BEHIND SETBACK = 47.2m2
(17.9m2 BEHIND SETBACK)

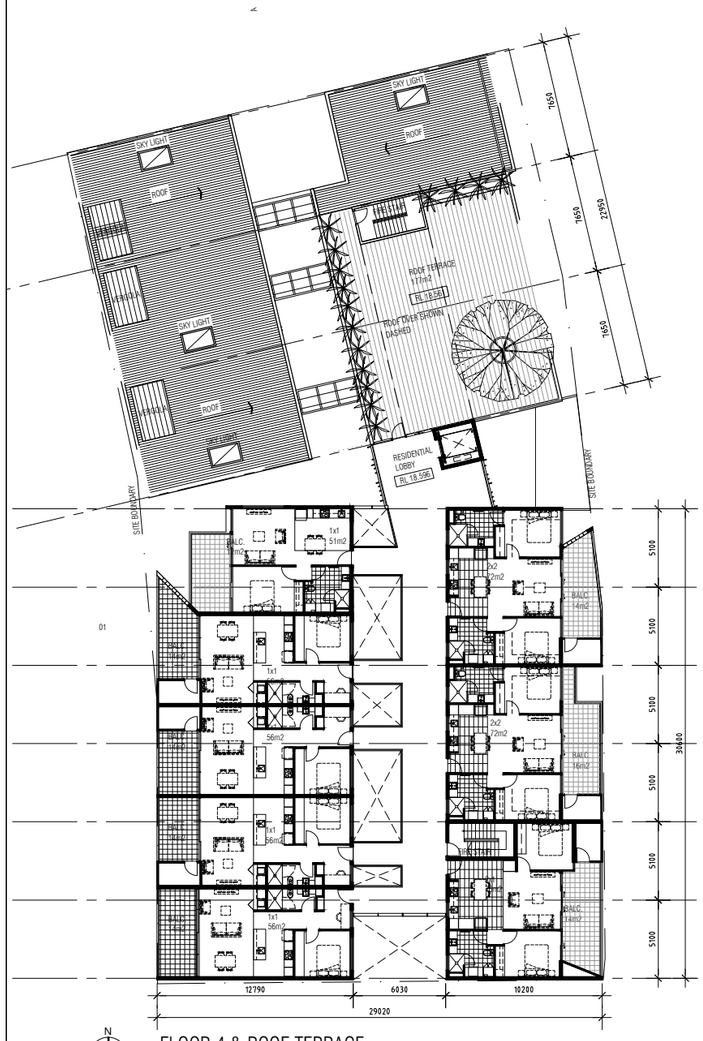
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

PLANS

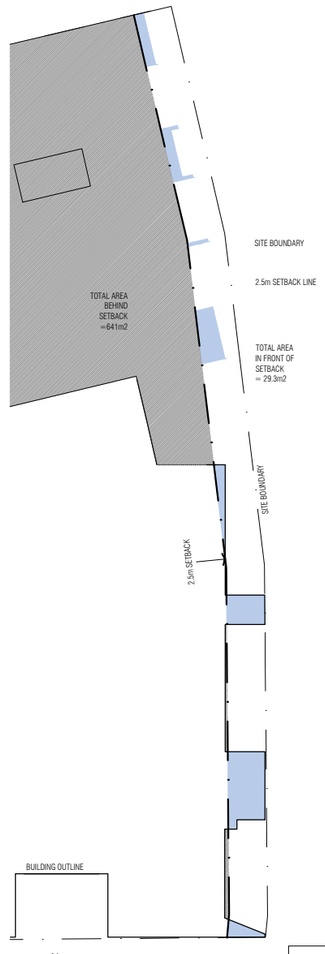
SCALE:	DRAWING No.	REV
1:200@A1	P.03	A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No.	
ISSUED FOR: REVIEW	1432	

NO.	DATE:	AMENDMENT:



FLOOR 4 & ROOF TERRACE

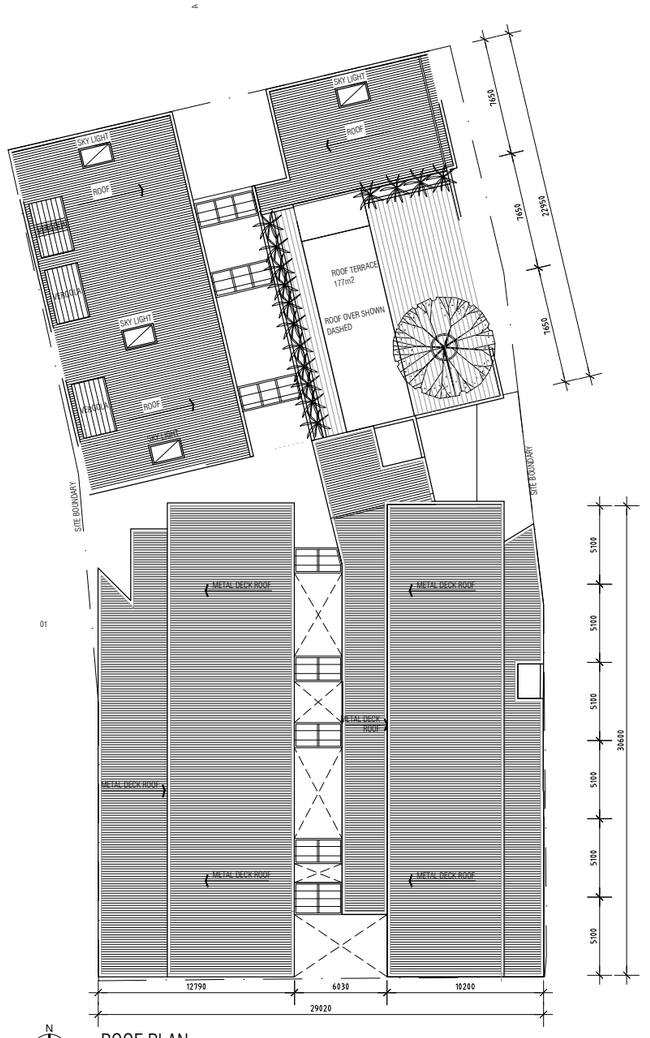
SCALE 1:200



SETBACK AVERAGING - ORSINO BVD LEVEL 4

SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3m2
TOTAL AREA BEHIND SETBACK =641m2
(611.7m2 BEHIND SETBACK)



ROOF PLAN

SCALE 1:200

MJA

McDonald Jones Architects Pty Ltd
ABN 15 085 983 428
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

PLANS

SCALE: 1:200@A1	DRAWING No. P.04	REV A
DATE: 04.07.2014		
DRAWN: OB CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:
A	04.07.14	ISSUED FOR DA

ELEVATION 01

SCALE 1:200

ELEVATION 02

SCALE 1:200

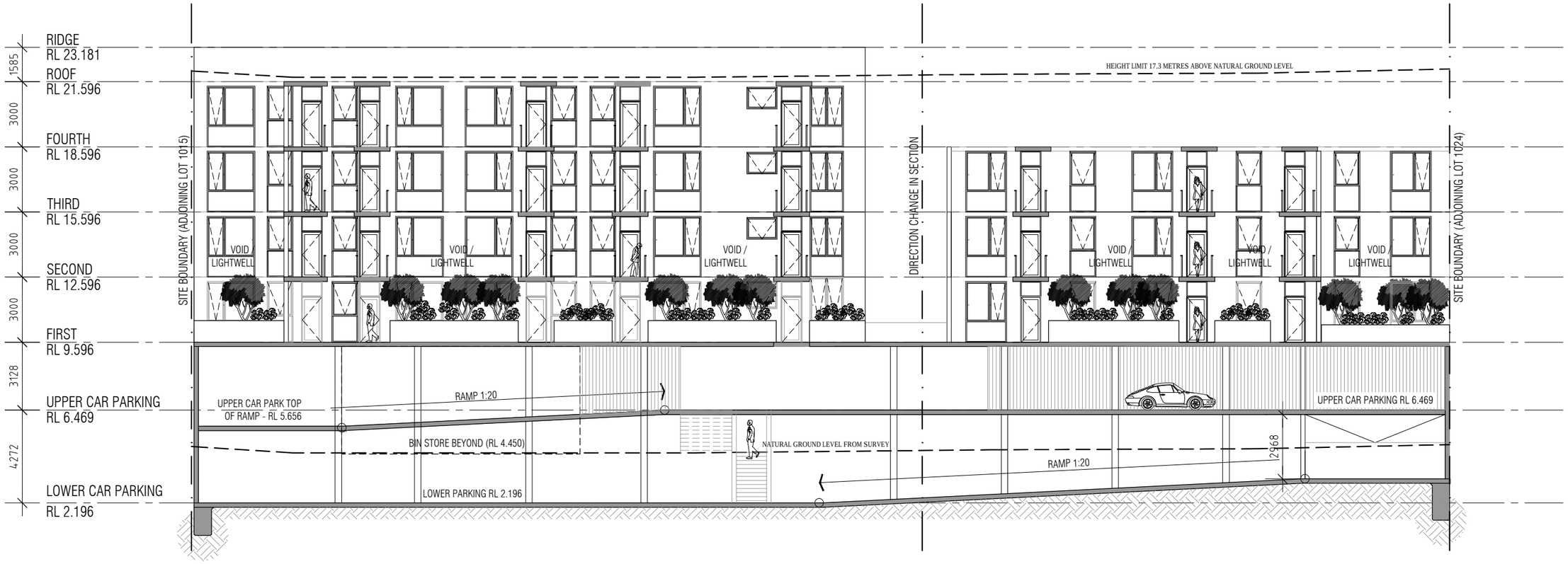
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

ELEVATIONS

SCALE: 1:200@A1	DRAWING No. P.05	REV A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: DA		

NO.	DATE:	AMENDMENT:



SECTION THROUGH ATRIUM

SCALE 1:100

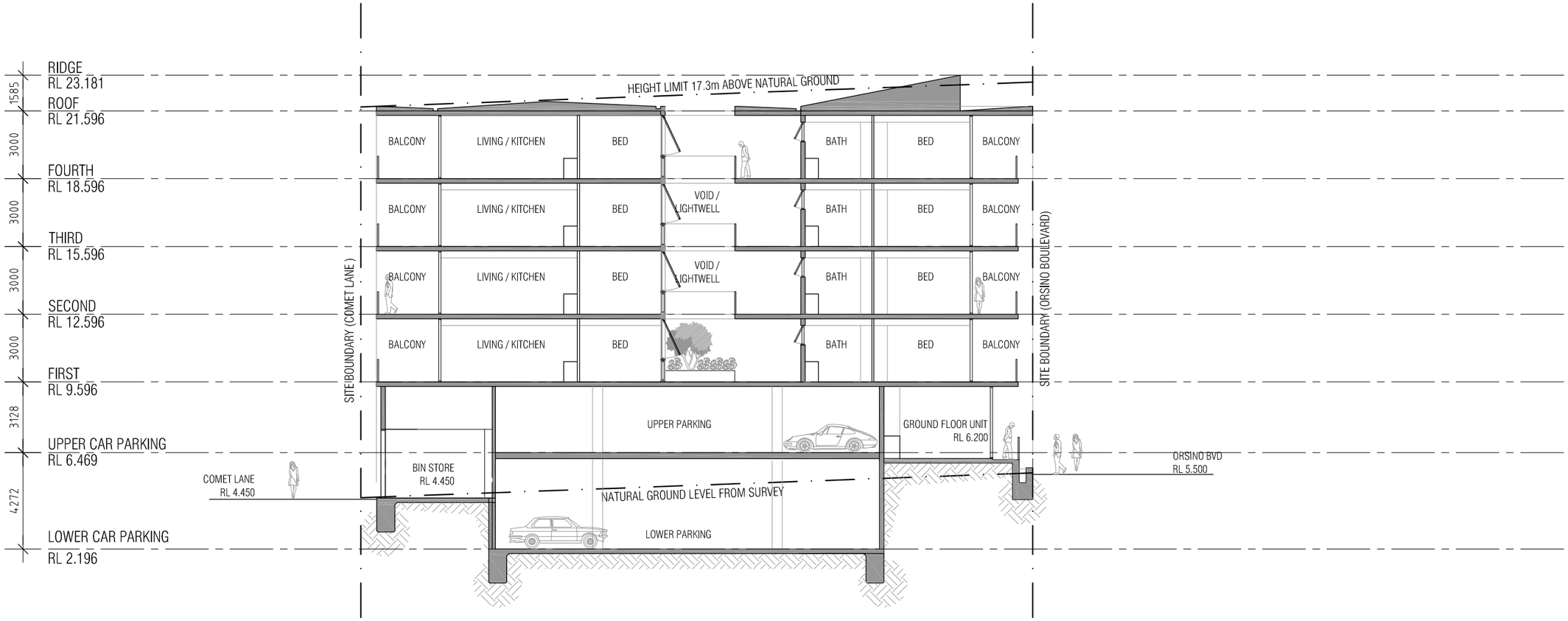
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

LEVELS SECTION

SCALE: 1:200@A1	DRAWING No. P.06	REV A
DATE: 04.07.2014		
DRAWN: OB CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:



SECTION 01 THROUGH ATRIUM

SCALE 1:100

MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

SECTIONS

SCALE: 1:200@A1	DRAWING No. P.07	REV A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:

AREA SCHEDULE
SITE AREA 1700m2

GROUND FLOOR
1 APT @ 77 m2 =77m2
1 APT @ 87 m2 =87M2

TOTAL 2 APARTMENTS = 164m2

FIRST, SECOND, THIRD FLOOR

3 APTS @ 51m2 = 153m2
3 APTS @55m2 =115m2
12 APTS @56m2 = 672m2
3 APTS @ 60m2 =120m2
15 APTS @64m2 = 960m2
6 APTS @72m2 = 432m2

TOTAL 42APTS =2,562m2

FOURTH FLOOR

4 APTS @ 56m2 = 224m2
1 APTS @ 51m2 = 51m2
1 APTS @ 64m2 = 64m2
2 APTS @ 72m2 = 144m2

TOTAL 8 APTS = 483m2

TOTAL 52 APTS = 3209m2

APARTMENT SPLIT 22 X 1 BED / 30 X 2 BED

OPEN SPACE TOTALS
GROUND 149m2
L1-L3 208m2
L4 127m2
TOTAL = 484m2 (28% OF SITE AREA)

STOREROOMS (ALL 4m2)
ON BALCONIES: 24
IN BASEMENT: 32
TOTAL: 52

CAR PARKING CALCULATIONS (from DAP requirements - not R-Codes)

RESIDENT PARKING:
30 DWELLINGS/2004m2
0.3 BAYS PER DWELLING = 30 DWELLINGS X 0.3 = 9 BAYS
PLUS 0.012 BAYS PER m2 OF INTERNAL LIVING AREA = 2004 X 0.012 = 24.04 BAYS

VISITOR BAYS
0.035 BAYS PER DWELLING = 30 x 0.035 = 1.05
PLUS 0.0015 BAYS PER m2 INTERNAL LIVING AREA = 0.0015 x 2004= 3.006

ONE BEDROOM DWELLINGS:
22 DWELLINGS/1112m2
ONE BAY PER DWELLING = 22 BAYS
0.1 VISITOR BAYS PER DWELLING = 0.1 x 22 = 2.2 BAYS

TOTAL REQUIRED CAR BAYS:
RESIDENT BAYS: 55.04(56 BAYS)
VISITOR BAYS:6.256 BAYS (7 BAYS)

PROVIDED CAR PARKING

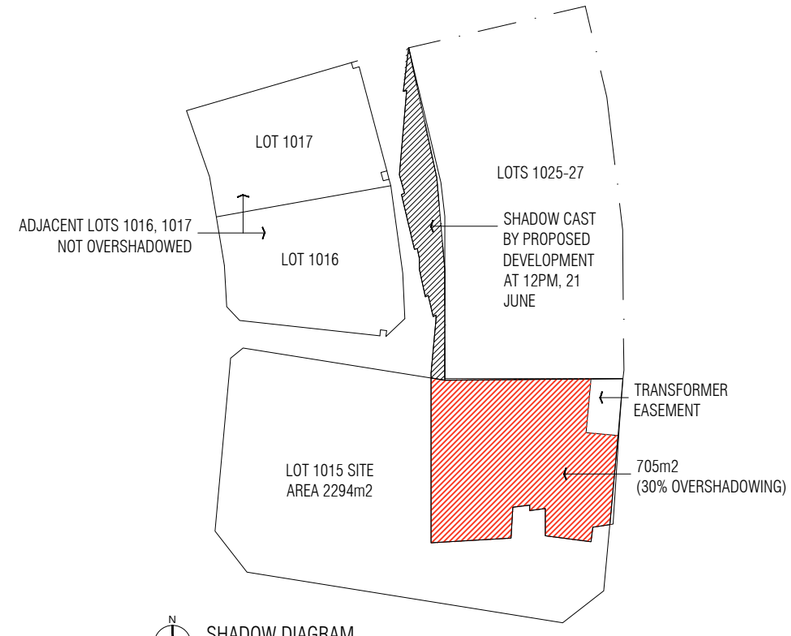
LOWER CAR PARKING
43 BAYS TOTAL (8 TANDEMS)

UPPER CAR PARKING
RESIDENTIAL PARKING
33 BAYS TOTAL (8 TANDEMS)

ON SITE VISITOR PARKING:
4 BAYS TOTAL

ON STREET VISITOR PARKING:
3 BAYS TOTAL

TOTALS :
79 BAYS (16 TANDEMS) RESIDENTIAL PARKING
4 BAYS VISITORS PARKING- ON SITE
3 BAYS VISITOR PARKING -ON STREET (ALLOCATION OF 1 PER LOT)



SHADOW DIAGRAM
SCALE 1:500

MJA
McDonald Jones Architects Pty Ltd
ABN 15 085 983 428
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

AREAS

SCALE: 1:200@A1
DRAWING No. P.08
REV A
DATE: 04.07.2014
DRAWN: OB CHECKED: CHKD
JOB No. 1432
ISSUED FOR: REVIEW

IMAGE 03 - ORSINO BOULEVARD STREET PERSPECTIVE

IMAGE 04 - ORSINO BOULEVARD STREET PERSPECTIVE 02 SHOWING GROUND FLOOR APARTMENTS

IMAGE 05 - GROUND FLOOR APARTMENT PERSPECTIVE

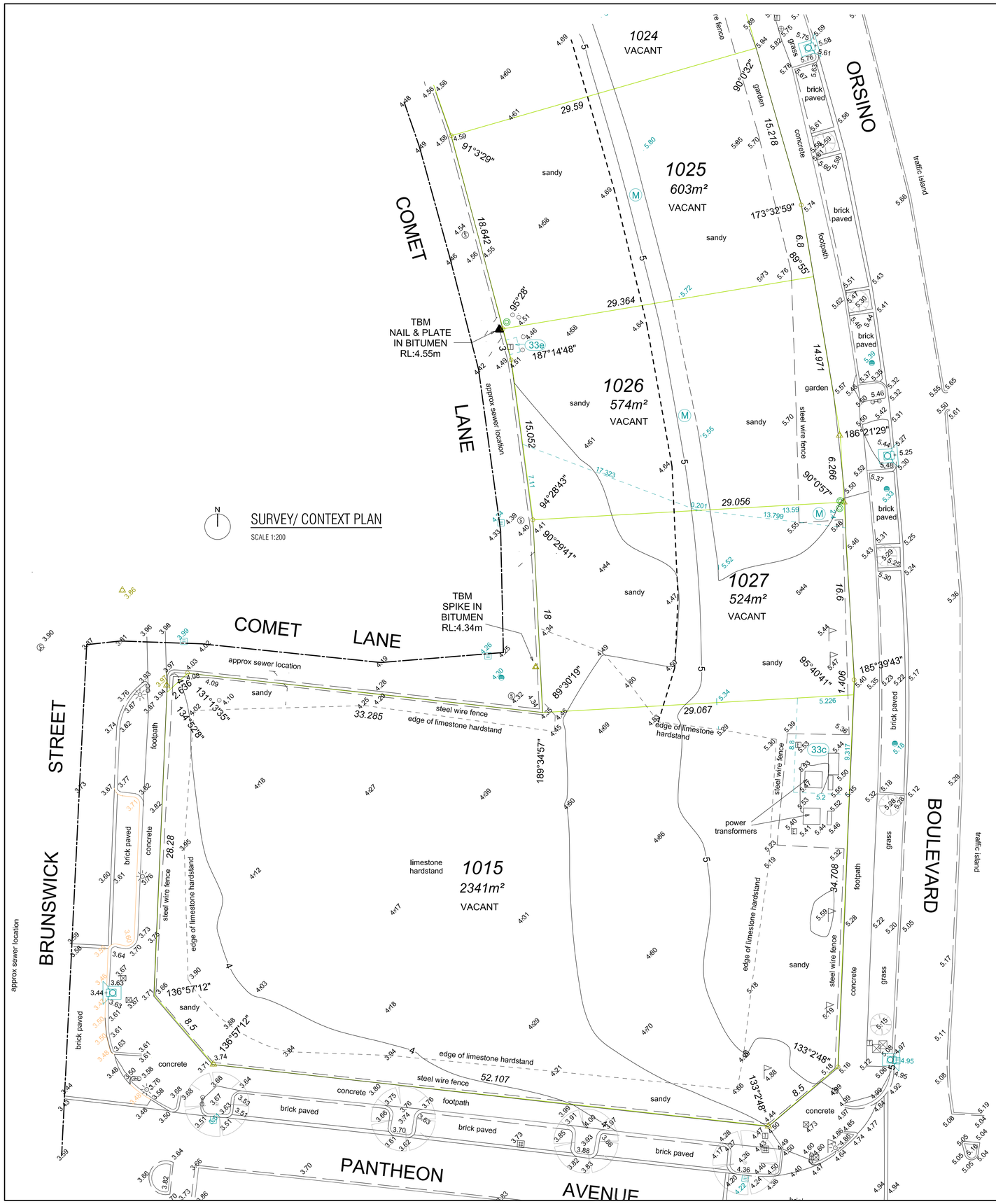
IMAGE 06 - COMET LANE STREET PERSPECTIVE

IMAGE 08 - COMET LANE STREET PERSPECTIVE 02

IMAGE 07- ATRIUM PERSPECTIVE

11.2 APPENDIX C - WASTE MANAGEMENT PLAN

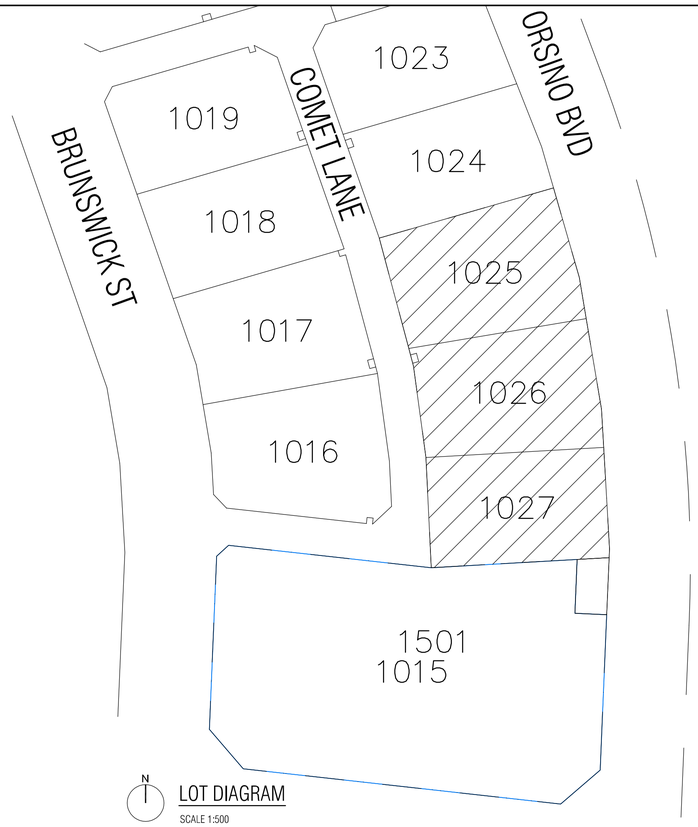
11.2 APPENDIX D - LANDSCAPING PLAN



N

SURVEY/ CONTEXT PLAN

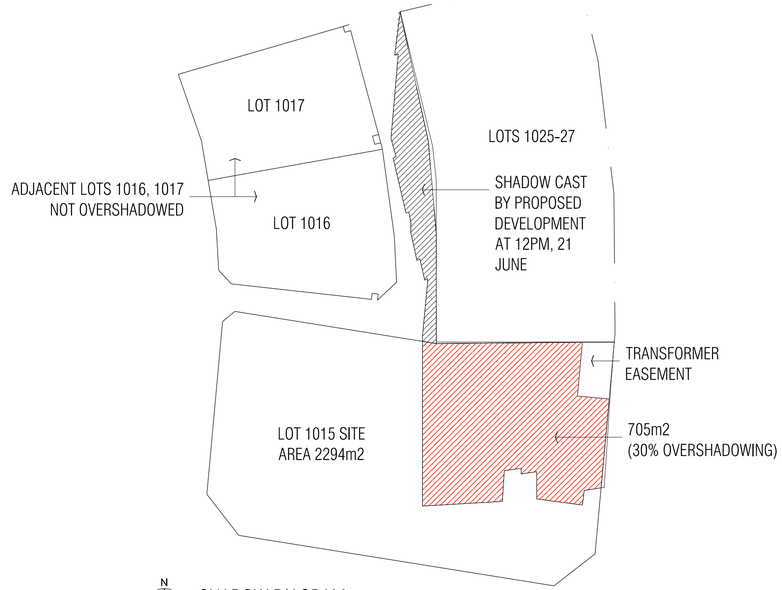
SCALE 1:200



N

LOT DIAGRAM

SCALE 1:500



N

SHADOW DIAGRAM

SCALE 1:500

NO.	DATE:	AMENDMENT:

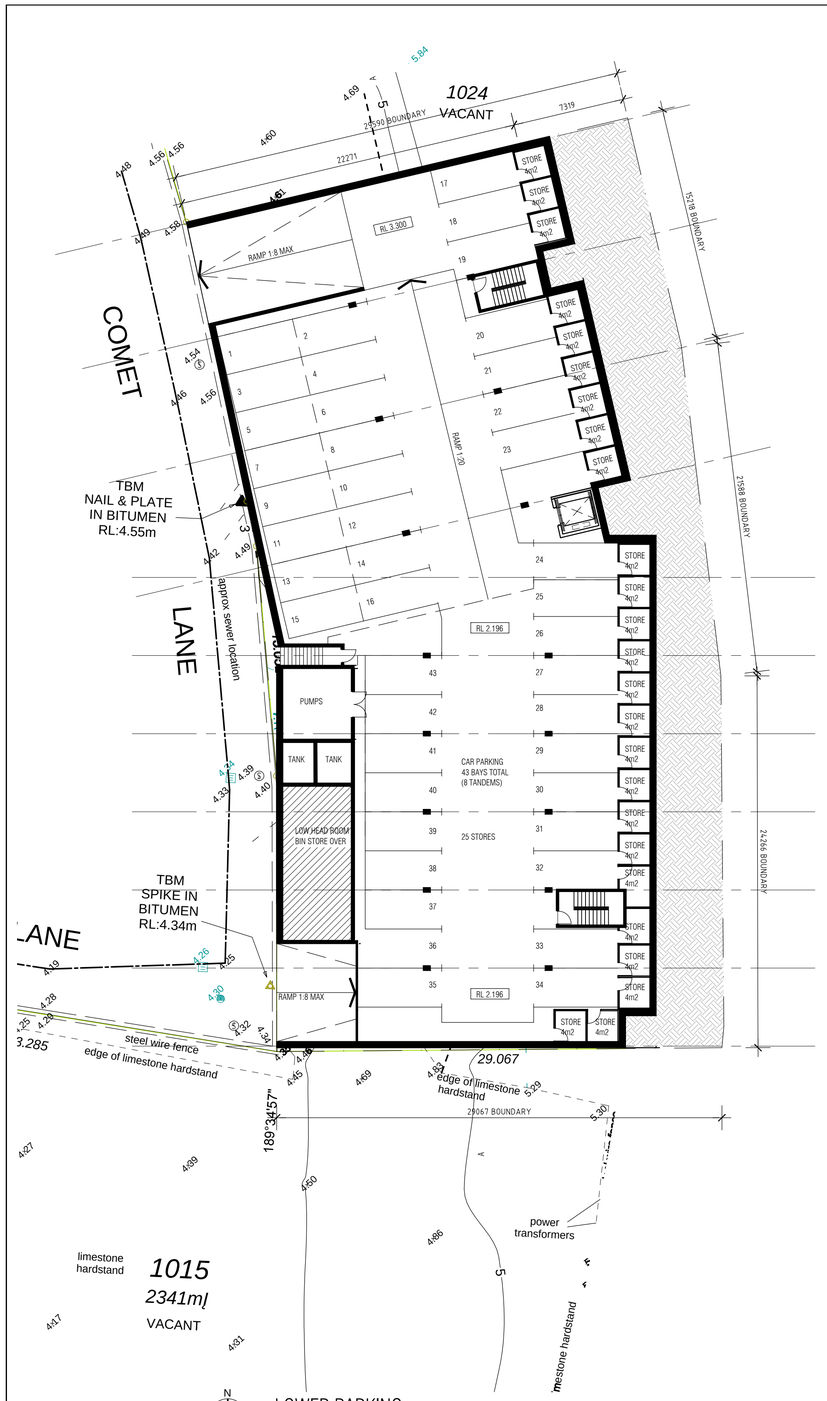
MJA

McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

SITE CONTEXT / SURVEY

SCALE:	DRAWING No.	REV
1:200@A1	P.01	A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		



N

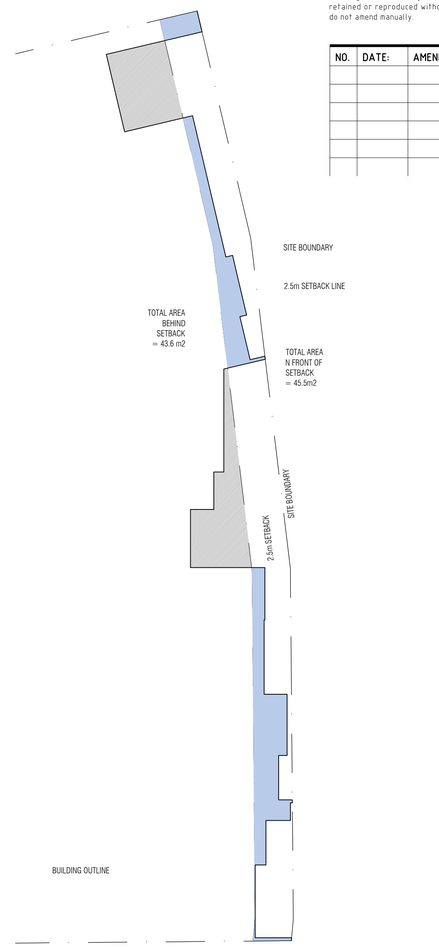
LOWER PARKING

SCALE 1:200

N

GROUND / UPPER PARKING

SCALE 1:200



N

SETBACK AVERAGING - ORSINO BVD GROUND

SCALE 1:200

AREA IN FRONT OF SETBACK = 45.5 m2
TOTAL AREA BEHIND SETBACK = 43.6 m2
(1.9m2 IN FRONT OF SETBACK)

NO.	DATE:	AMENDMENT:

MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

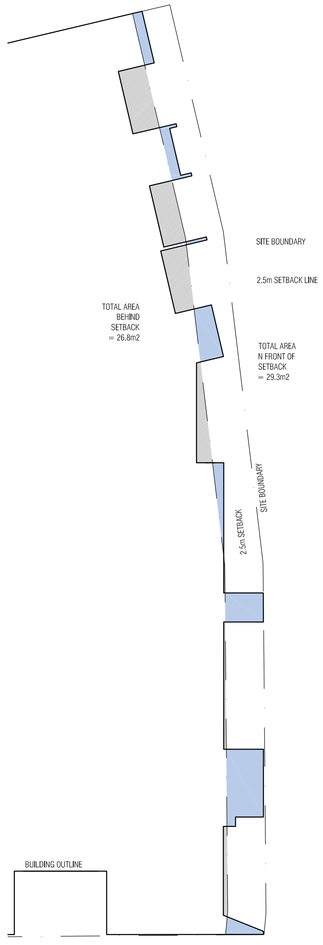
PLANS

SCALE:	DRAWING No.	REV
1:200@A1	P.02	A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:

FLOOR 1

SCALE 1:200@A1 /1:400@A3



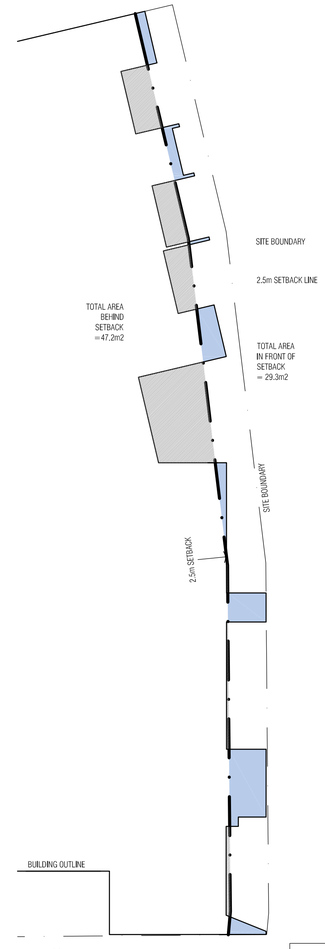
SETBACK AVERAGING - ORSINO BVD LEVEL 01

SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3 m2
TOTAL AREA BEHIND SETBACK = 26.8 m2
(2.5m2 IN FRONT OF SETBACK)

FLOOR 2/3

SCALE 1:200



SETBACK AVERAGING - ORSINO BVD LEVEL 2,3

SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3m2
TOTAL AREA BEHIND SETBACK =47.2m2
(17.9m2 BEHIND SETBACK)

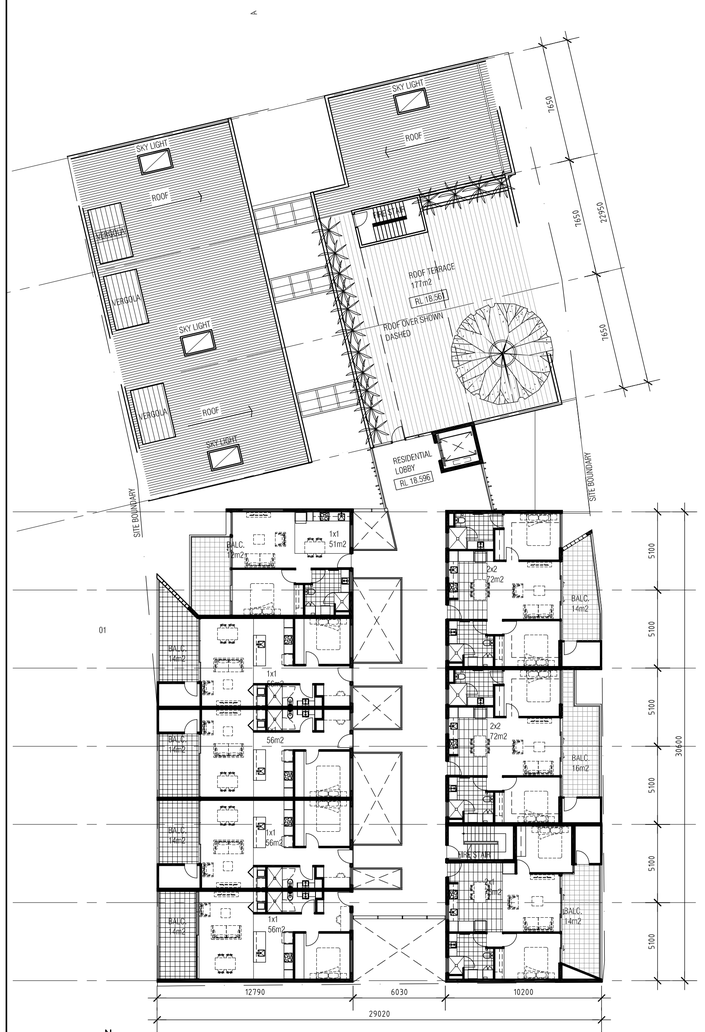
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

PLANS

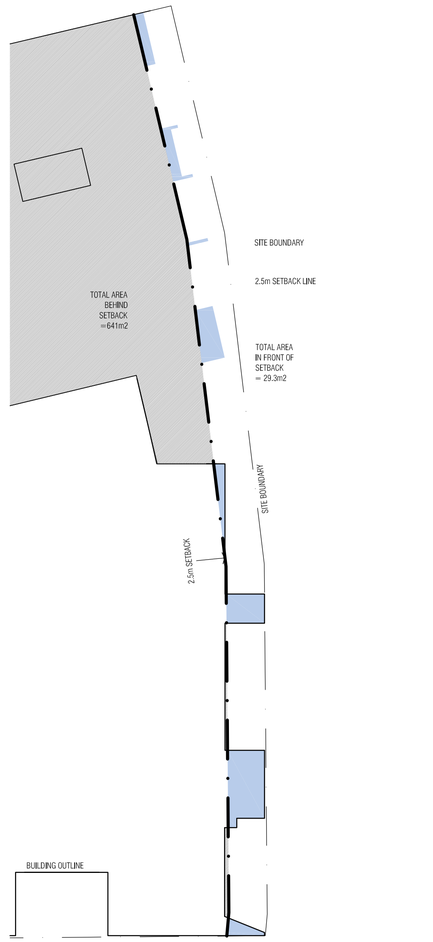
SCALE: 1:200@A1	DRAWING No. P.03	REV A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:



FLOOR 4 & ROOF TERRACE

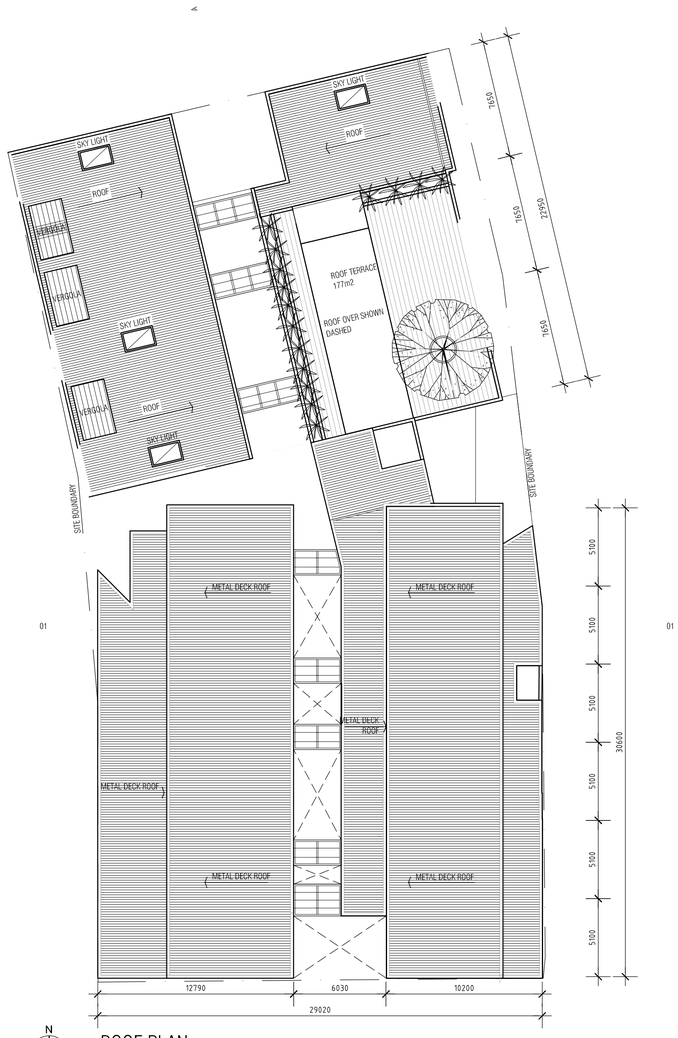
SCALE 1:200



SETBACK AVERAGING - ORSINO BVD LEVEL 4

SCALE 1:200

AREA IN FRONT OF SETBACK = 29.3m2
TOTAL AREA BEHIND SETBACK =641m2
(611.7m2 BEHIND SETBACK)



ROOF PLAN

SCALE 1:200

MJA

McDonald Jones Architects Pty Ltd
ABN 15 085 983 428
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

PLANS

SCALE:	DRAWING No.	REV
1:200@A1	P.04	A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:
A	04.07.14	ISSUED FOR DA

ELEVATION 01

SCALE 1:200

ELEVATION 02

SCALE 1:200

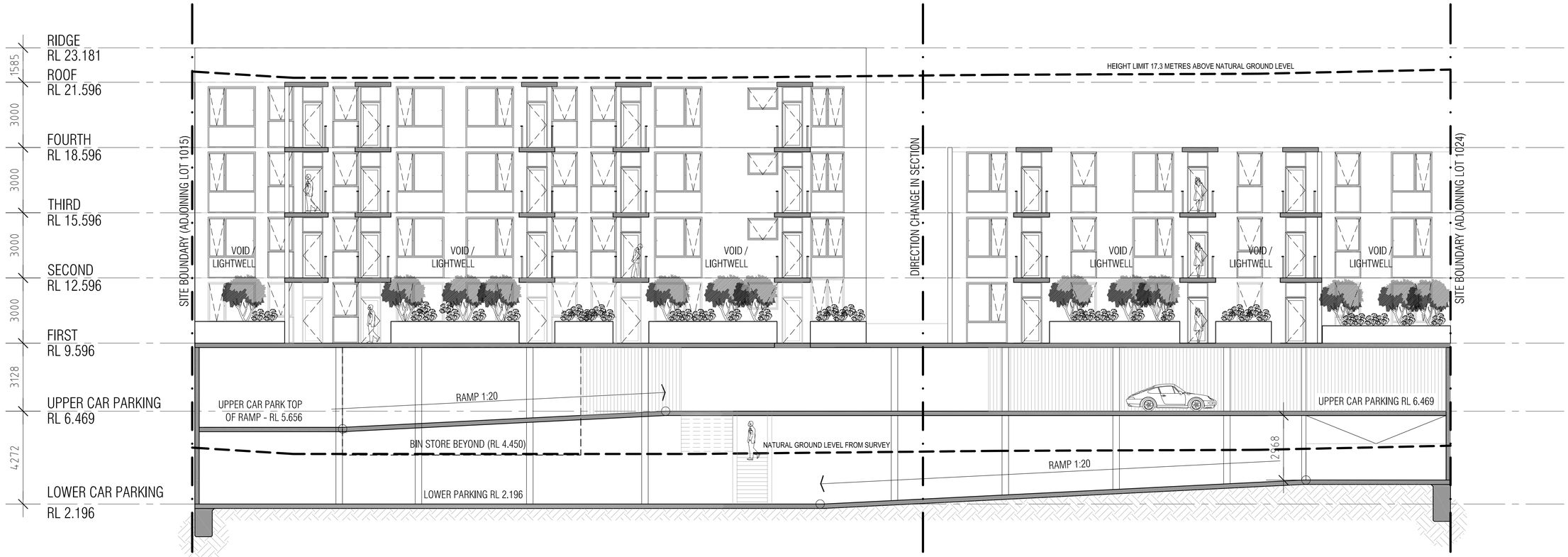
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

ELEVATIONS

SCALE: 1:200@A1	DRAWING No. P.05	REV A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: DA		

NO.	DATE:	AMENDMENT:



SECTION THROUGH ATRIUM

SCALE 1:100

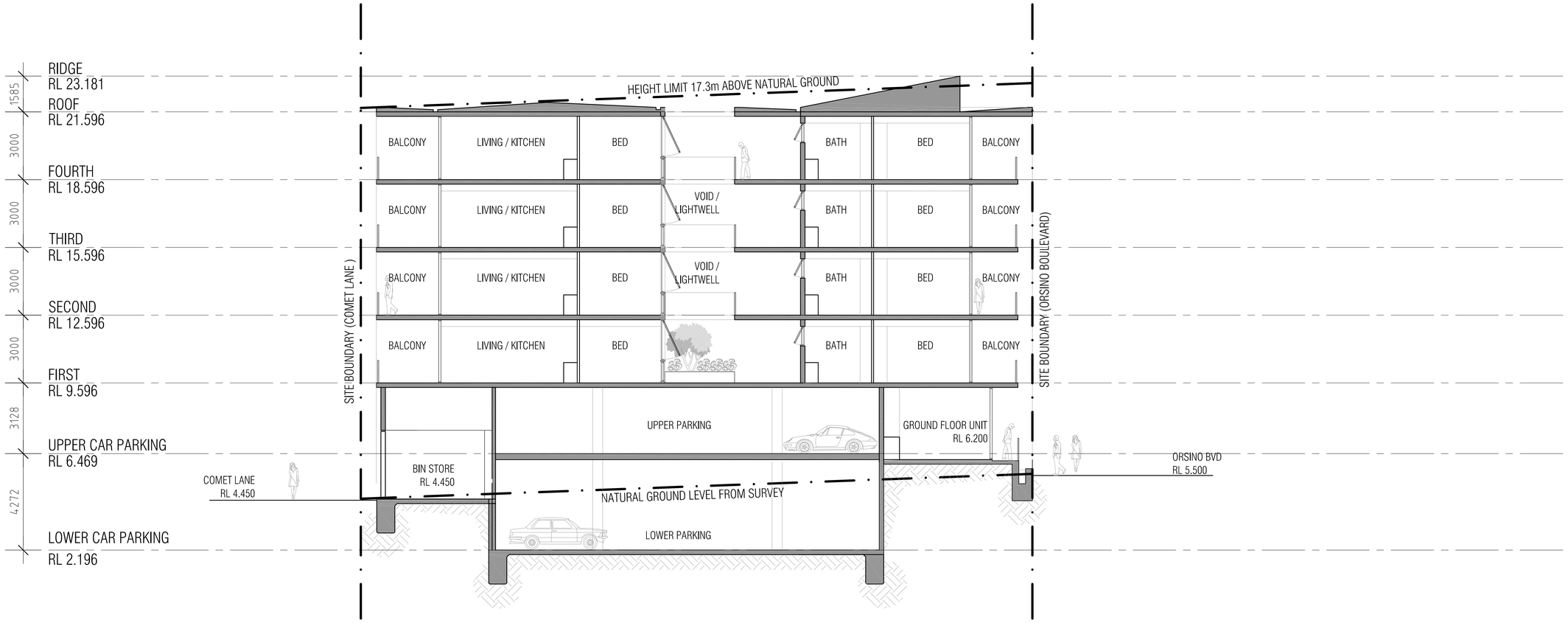
MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

LEVELS SECTION

SCALE: 1:200@A1	DRAWING No. P.06	REV A
DATE: 04.07.2014		
DRAWN: OB CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		

NO.	DATE:	AMENDMENT:



SECTION 01 THROUGH ATRIUM

SCALE 1:100

MJA
McDonald Jones Architects Pty Ltd
A B N 1 5 0 8 5 9 8 3 4 2 8
23 Hamilton Street Subiaco WA 6008
T 08 9388 0333 F 08 9388 0555
admin@macjones.net www.macjones.net

MIXED USE DEVELOPMENT
LOTS 1025 - 1027
PORT COOGEE
STIRLING CAPITAL

SECTIONS

SCALE: 1:200@A1	DRAWING No. P.07	REV A
DATE: 04.07.2014		
DRAWN: OB / CHECKED: CHKD	JOB No. 1432	
ISSUED FOR: REVIEW		